

COMPARATIVE EVALUATIONS AND CENTRALITY TO THE SELF:
THE CAUSES AND CONSEQUENCES OF GREATER SATISFACTION WITH
EXPERIENTIAL OVER MATERIAL PURCHASES

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COMPARATIVE EVALUATIONS AND CENTRALITY TO THE SELF:
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Anyone with a restricted amount of discretionary income hopes to get the very most utility out of every purchase. The present research was conducted to examine and explore one potential shortcut to making satisfying purchases, namely opting to choose experiential over material purchases. Experiences, purchases made with the intention of experiencing some event, like vacations or a meal at a restaurant, have been shown to be more satisfying than material possessions, purchases made with the intention of ownership and possession, like clothing or electronic gadgets (Van Boven & Gilovich, 2003). Although several explanations for this finding have been offered, to date little research has examined the underlying mechanisms. The present dissertation offers evidence across 14 studies in support of two such mechanisms. First, the evaluation of material possessions tends to rely on comparisons – comparisons to unchosen options, to the new models now available, to the possessions of a friend. Experiences, on the other hand, tend to be evaluated largely on their own merits. As a result, people tend to engage in different decision-making strategies, opting to maximize material purchases and satisfice experiential purchases. The decision process is thus more difficult for possessions, and the unchosen options are more likely to linger in memory, increasing the possibility of regret, and diminishing present satisfaction. Furthermore, because comparisons are more relevant to the

evaluation of possessions, negative comparative information has a greater hedonic impact for possessions than for experiences. A second reason that experiences are ultimately more satisfying has to do with their relationship to the self-concept. Because we define ourselves as a collection of memories, and, unlike possessions, experiences exist primarily in memory, experiences form a greater part of the self-concept. What's more, the motivation to protect those memories helps to explain why experiential purchases are more satisfying. Additional evidence shows that, although the distinction between material and experiential purchases is sometimes murky, this ambiguity can be advantageous. Focusing on the experiential aspects of a purchase can obviate some of the negative consequences associated with material purchases. The implications of these findings are discussed.

BIOGRAPHICAL SKETCH

Travis Justin Carter graduated from the University of Chicago with Honors in Psychology, in 2001. He remained in Chicago for the next three years, spending his time in bright psychology labs and dank rock clubs before the siren song of post-graduate education lured him to Cornell University in the fall of 2004. As fate would have it, he will return to city of broad shoulders for a postdoctoral position at the University of Chicago's Booth School of Business in August 2009.

I dedicate this work to my family, for their love and support; to my committee, for their guidance and knowledge; and to my fellow graduate students, for their tolerance, solidarity and companionship.

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Chapter 1: Introduction

Some of my fondest memories of growing up are the trips my family would take in the summer, typically either camping in the mountains of Colorado, or spending time with grandparents, aunts and uncles, who just happened to live near beautiful beaches in Florida. Whether it was deciding which activities we'd do in Florida or which lake or campground to tackle that year, the decisions were never terribly difficult, and we rarely regretted the choice.

Much of the time, the vacations were great – we'd enjoy the company of family and the change of scenery. They were not, however, perfect. Every camping experience required a stomach-churning trip up the Big Thompson Canyon, the foul stench of campground chemical toilets, sleeping on a slant with a tree root in your back, and inevitably, a rainy afternoon or two stuck inside the cramped tent. The visits to Florida had their drawbacks as well. Traveling from Colorado was always arduous, and I could never get used to the musty smell inherent to a humid climate. Days on the beach often ended in sunburns and foot blisters from the hot sand. And yet, when I think back now about those trips, the negative aspects get lost; I focus instead on the sandy beaches, the brisk mountain air, and the time bonding with family. The bad parts, furthermore, never seem that bad in retrospect. The rainy afternoons stuck in the tent, probably unbearable at the time, now seem quaint and cozy. Indeed, most people do tend to sharpen and level their memories, taking the "rosy view" of their vacations over time (Mitchell, Thompson, Peterson & Cronk, 1997).

Another major event from my childhood stands out. When I was about 10 years old, my parents' cars both needed replacing at the same time, and over the course of a few weeks, they bought two new cars. We ended up with a Jeep Cherokee (partly to use on our camping trips), and a sedan from a now-defunct American car company. They agonized over the decision and the purchase process in both cases,

haggling until they eventually got what they felt was a very good deal. By most measures, the Jeep proved to be a great purchase. It rarely needed more than routine maintenance, and stayed in the family long enough to be passed down to me after I finished college. I finally sold it two years into graduate school, when the car would have been old enough to vote, and was failing to start on a regular basis.

The sedan, on the other hand, proved to be a disaster. It was in constant need of repair, mostly to fix small, inessential features, but each new problem frustrated us endlessly. Even now, my family views that car with considerable scorn for the wasted time, effort, and money. It literally drove my parents into leasing cars rather than buying them, because they hated the thought of getting stuck with another unreliable piece of junk.

I bring up the examples of the vacations and the cars, not because they give insight into my childhood, but because they illustrate the main points of the present dissertation quite well. To start, the vacations were considerably more satisfying than the cars, especially evaluating them in retrospect. This is perhaps unsurprising, given the research demonstrating that experiential purchases tend to be more satisfying and make people happier than material purchases (Van Boven & Gilovich, 2003). More to the point of the present dissertation, why might this be? First, when we were evaluating the quality of the vacation, it was always on its own merits. How much fun did we have? How much time did we get to spend in the ocean, or on the mountain? Learning that the weather would have been better had we gone to a different campground did not significantly dampen our enjoyment of the chosen spot. Conversely, evaluating the quality of the cars was done quite comparatively. How reliable were the cars compared to our expectations, compared to the cars we did not choose? How well did they perform relative to the other cars on the road? In the case of the Jeep, these comparisons were generally quite favorable. The sedan, not so

much. This difference in how they were evaluated led my parents to approach the decisions differently, with a relatively simple decision process for our vacation plans, and a much more in depth and exhaustive process for the cars. Also, any information suggesting the choice could have been better, such as comparatively better weather in an unchosen location or comparatively better performance in an unchosen model, had a greater impact on our enjoyment of the cars than it did on our enjoyment of our vacations.

Second, the vacations have contributed significantly more to forming who I am today. The memories of those trips play a large part in how I define myself, even now. When I think back on my childhood, I would not trade those vacation memories for anything. Even the parts that were difficult to endure at the time (e.g. sleeping on the hard ground) have taken on a character-building quality, and are fun to talk about now. Although my family does think fondly of the Jeep that lasted so long, its poor performance towards the end doesn't have that same rosy quality in my memory. And to say nothing of the sedan, which is regarded as an object of derision, not nostalgia. If I need to choose formative events from my childhood, I would be considerably more likely to describe my childhood vacations than my (or my parents') childhood possessions.

These differences, as I will argue, generalize beyond these two admittedly cherry-picked memories from my childhood. Indeed, they help explain why experiences like my vacations ultimately tend to be more satisfying than material possessions, like the family cars. With limited discretionary income, people are typically looking for easy ways to get the most out of their purchases. Choosing experiences over possessions appears to be one way to maximize satisfaction. It is hoped that illuminating the processes behind this finding will ultimately contribute to greater consumer satisfaction.

Overview

In the present dissertation, I intend to replicate, explore and expand on the findings of Van Boven and Gilovich (2003), that experiences tend to be more satisfying, and make people happier, than possessions. In describing that finding, Van Boven and Gilovich (2003) propose three potential explanations: experiences are 1) more open to positive reinterpretation, 2) more central to one's identity, and 3) have greater "social value." I believe there is also a fourth possible explanation, which is the focus of Chapter 2. Specifically, in Chapter 2, I argue that possessions are evaluated more comparatively than experiences, which has several notable consequences. In Part 1, I explore the impact comparability has on the decision-making process. The reliance on comparisons to evaluate possessions leads people to use more of a maximizing strategy for possessions, and more of a satisficing strategy for experiences (Studies 1 and 2). People also evaluate the choice differently after the choice is made, using a more comparative strategy for possessions than experiences (Study 3). Part 2 tests whether the greater comparative behavior for possessions leads material purchase decisions to be more difficult, with thoughts of unchosen options having a negative impact on satisfaction (Study 4A), and mood (Study 4B). Additionally, Part 2 shows that negative comparisons to other possessions (but not experiences) appear to happen spontaneously (Study 5). In Part 3, I explore the idea that, even after a purchase is made, comparative information, particularly negative comparative information, has a greater hedonic impact for possessions than experiences (Studies 6-8).

In Chapter 3, I explore the second of Van Boven and Gilovich's (2003) proposed explanations, namely that, because experiences exist largely in memory and we define ourselves as a collection of memories, experiences have greater relevance to the self-concept than do possessions. In Part 1, I test whether, compared with

possessions, experiences are indeed considered closer to the self-concept (Study 9) and are more likely to be included in a description of the self (Study 10). In Part 2, I examine whether the motivation to protect those memories helps to explain why experiential purchases are more satisfying (Study 11).

In Chapter 4, I explore the possibility that the ambiguity and malleability of the categories can be advantageous. That is, because many material purchases do have some experiential qualities, reconstruing an existing purchase in terms of its experiential qualities (Study 12) or framing a potential purchase in experiential terms (Study 13) may allow one to avoid some of the negative consequences of material purchases. A comparative overview of the studies, including the different methodologies employed, can be found in Table 1. Finally, I discuss remaining issues, the other two explanations offered by Van Boven and Gilovich (2003), and future directions in Chapter 5. However, before I proceed any further, the definitional concerns inherent in this research need to be addressed.

Table 1: Comparative overview of the studies' focus and methodology. Methodology codes: C = Concrete examples of material and experiential purchases, H = Hypothetical scenario, R = Retrospective recall of actual purchase, A = Actual experience/possession in the lab, G = Hypothetical example of material/experiential purchase generated by participant, F = Concrete example of a purchase framed as material or experiential, B = Between-participants design, W = Within-participants design.

	Focus of study	Method
<i>Chapter 2:</i>		
Study 1: Exploring a purchase array	Decision-making strategies	C, H, B
Study 2: Retrospective maximizing and satisficing	Decision-making strategies	R, W
Study 3: Post-choice comparisons	Post-choice evaluation strategy	C, H, B
Study 4A: Past difficulty and present concern	Difficulty of decision; Post-choice thoughts; Satisfaction	R, B
Study 4B: Impact on mood	Difficulty of decision; Number of comparisons; Mood	R, B
Study 5: Context matters, sometimes	Spontaneous use of comparative information; Satisfaction	C, A, B
Study 6: New options available	Hedonic impact of negative comparative information	C, H, B
Study 7: Cheaper later	Hedonic impact of negative comparative information	C, H, B
Study 8: A rival's better deal	Hedonic impact of negative social comparisons	C, H, G, W
<i>Chapter 3:</i>		
Study 9: Diagramming the self	Closeness of purchases to self-concept	R, W
Study 10: Telling a life story	Use of purchases to describe oneself	R, W
Study 11: Memory exchange	Clinging to memories; Satisfaction	R, B
<i>Chapter 4:</i>		
Study 12: Retrospective reconstrual	Construal of possession as experience; Post-choice thoughts	R, B
Study 13: Framing away invidious comparisons	Construal of possession as experience; Hedonic impact of negative comparative information	C, H, F, B

Part 1: Definitional issues

Distinguishing material and experiential purchases

One of the thorniest issues in this research is defining and distinguishing material and experiential purchases. Following Van Boven and Gilovich (2003), the intention behind the purchase provides a wedge. At the most basic level, material purchases are made with the intention of ownership and possession. They are typically physical objects, and endure in one's possession for some period of time. Experiential purchases, on the other hand, are made with the intention of gaining some experience. They are often intangible, and endure primarily in memory. Crudely, material possessions are goods; experiences are services. One purchases an experience to do, and a material possession to have. Some of the prototypical category members can also help elucidate the category boundaries. Typical material possessions include things like cars, clothing, jewelry, various types of electronic gadgets, and furniture. Typical experiences include vacations, meals at restaurants, music and theatre performances.

Of course, these categories are by no means discrete, and should be thought of more as a continuum. Vacations are clearly experiential, and a collection of comic books one keeps locked away is clearly a possession. But what of physical objects that have experiential utility? My acoustic guitar is something I intend to keep in my possession for some time, but I get little joy from the mere knowledge that I own it. The joy comes from the experience of playing the guitar, and its particularly pleasing timbre. That is, its utility is described entirely by what it allows me to do. As such, I consider it to be a somewhat experiential good. Others might see an acoustic guitar as something to be collected, and thus, a possession. Similarly, a flat-screen television could be thought of as a material possession. It will reside in the living room, and one might derive pleasure from merely knowing one has a nice and expensive piece of

furniture. A television could also be thought of as an experience, as a way for a film buff to enjoy movies, a sports buff to watch the Celtics play basketball or Arsenal play soccer, or as a means to bond with family and friends over the television shows they all enjoy. It might seem that such ambiguous cases would negate the utility of the categories, but in the studies I report below, it becomes clear that participants have little trouble intuiting how the categories should be used, easily recalling purchases that others agree fit one category or another. Furthermore, as pointed out in the original research on the subject, the existence of dusk, the time when one cannot easily tell whether it is currently day or night, does not negate the utility of having the categories of day and night (Van Boven & Gilovich, 2003).

Still, how should these ‘dusk-like’ purchases be categorized? Ultimately, these purchases can be classified, in large part, based on the intention behind them, and the means by which one derives pleasure. If the primary intention was acquisition and possession, a purchase would be considered a material purchase. If the primary intention behind a purchase was to use and experience it, it would be considered an experiential purchase. Thus, the same purchase might be placed into a different category by different people, depending on their perspective or their intentions. One intriguing feature of purchases that have both material and experiential qualities is that one can emphasize the experiential aspects of what would otherwise be a material purchase, and potentially attain some of the positive psychological consequences of experiences. Chapter 4 deals with this issue in greater depth.

Another interesting exceptional type of purchase is souvenirs, the trinkets and mementos that people purchase as a reminder of their vacations or other experiences, like t-shirts with the name of the city or resort. Although material in nature, they serve as a reminder of experiences. People buy them as a way to extend their self, their collection of memories and experiences, into the physical world (Belk, 1988; Richins,

1994; Tian & Belk, 2005; see also Ahuvia, 2005), and as “memory pointers,” a way to trigger easy recollection of important memories (Zauberman, Ratner & Kim, 2009). Because they are purchased primarily as a physical link to the memory of an experience, they would be classified as experiences in most cases. The present research, however, focuses on purchases made for their own sake, and not symbolic purchases like souvenirs, or gifts for others. The existence of these other types of purchase may add some noise to the data, but the studies below use a wide variety of methodologies to distinguish the categories (see Table 1). That the same results obtain across the different methods reinforces the robustness and intuitive nature of the categories, and helps prevent these definitional concerns from becoming a damning confound.

Material vs. Materialistic purchases

A distinction should be made between *material* purchases and *materialistic* purchases. Although the similar terminology suggests a similarity in meaning, the two concepts are theoretically independent. Material purchases are the primary concern of the present research. As described above, they are typically physical objects that people possess for some period of time, and are partly defined in opposition to experiential purchases. Material possessions are purchased with the intention of ownership; experiences are purchased with the intention of experiencing an event. Materialistic purchases are also defined mainly by the intention behind them. While all purchases are presumably made with the intention of increasing utility, materialistic purchases are also made with the intent of signaling some sort of wealth or status, either to others, or perhaps just to oneself. Materialistic people are those who a) tend to make materialistic purchases, b) derive much of their happiness from sending signals of wealth, c) measure their success by their wealth, and d) define themselves

and others based on their purchases, status, and wealth (Richins & Dawson, 1992). Because materialistic people define themselves in terms of their purchases, sometimes the signal being sent is primarily to oneself, self-affirming that one's status is at the desired level. That said, materialistic purchases (and people) tend to be more extrinsically motivated than intrinsically motivated (e.g. Kasser & Ryan, 1993), seeking the approval and attention of others. Also, materialistic purchases (and people) exist as points on a spectrum, just as there is a spectrum of material and experiential purchases.

Based on these definitions, an experiential purchase can easily be materialistic in nature. Extravagant spa vacations and lavish parties clearly signal others to one's fiscal status. Conversely, a fairly utilitarian material good (e.g. a coffee mug) would not be materialistic. This is not to say that the price tag is the primary determinant of whether or not something would be considered materialistic. A true audiophile might buy a very expensive high fidelity stereo system, but if the intention behind the purchase were only to satisfy their well-honed ears, it would not be considered materialistic. If, on the other hand, the intention is primarily to outdo or impress one's audiophile friends, then the purchase is firmly in materialistic territory. Similarly, a restful, but expensive, beach vacation can be just that – a chance to recharge the batteries, to relax far away from the stresses and responsibilities of home and work life. It only becomes materialistic when it becomes ostentatious, when the additional utility one derives from extra expense is less about the experience itself and more about the signal it sends (e.g. a oenological dilettante ordering a staggeringly expensive bottle of wine).

Although the concepts are theoretically distinct, in practice, they are often confounded, for the simple reason that material possessions often serve the materialistic motive better than do experiences. Since physical objects are more

visible, they can better signal one's status and prosperity without any extra effort on the part of the purchaser. This issue is discussed in more detail in Chapter 3. What's more, a given purchase might have multiple intentions behind it – an audiophile's expensive stereo might serve both to satisfy their tastes and to impress her friends – further muddying the issue. In any case, to help avoid confusion, I will often use the term *possessions* instead of material purchases.

In sum, the definitions of the terms material and experiential may be imprecise, but, as I demonstrate below, they are still quite useful, and readily intuited by participants. As pointed out by Van Boven and Gilovich (2003), imprecise categories such as hedonic vs. utilitarian (e.g. Dhar & Wertenbroch, 2000) are quite often employed in research on consumer behavior, and rightly so. Provided that consumers can understand and intuit the categories at a general level, even imprecise categories can help make sense of the often chaotic and overwhelming nature of decision-making in the modern world.

Chapter 2: The relative relativity of evaluating material and experiential purchases

In the present chapter, I argue that material possessions are evaluated more comparatively than experiences. To be sure, the general human tendency is to comparatively evaluate stimuli (Gilbert, Giesler & Morris, 1995). Some evaluations, however, are more comparison-based than others. For example, happy people tend not to engage in social comparisons, which may partly explain their sunnier dispositions (Lyubomirsky & Ross, 1997; see also Lyubomirsky & Ross, 1999). Similarly, the enjoyment of some purchases is less affected by comparison with other available options than others. As I will demonstrate, this is more the case for possessions. Experiences, in contrast, tend to be evaluated more absolutely, on their own merits. That is, when determining the quality of a given television, one does so by comparing its picture quality to that of other televisions on the showroom floor. Similarly, satisfaction with one's cell phone is determined, in part, by how it compares to the new models just released. When evaluating experiences, on the other hand, people tend to focus on the experience itself, the particular taste and texture of the ice cream, the exact feeling of the warm sun on the skin. This is not to say that experiences do not involve comparisons, just that, rather than the external comparisons of possessions, experiential comparisons are more likely to be internal, comparing the evoked emotions and sensations to one's expectations or other internal reference level. As such, possessions are more likely than experiences to be positional goods, their worth being determined by their relative and not their absolute position (see Frank, 1999).

There is some evidence from existing research suggesting that this is true. Solnick and Hemenway (1998; see also Solnick & Hemenway, 2005) found that a slight majority of respondents would prefer to live in a world in which they made \$50,000 and everyone else made \$25,000 than a world in which they made \$100,000 and everyone else made \$200,000. Being wealthy is apparently a comparative

statement; one is considered wealthy as long as someone else has less. This comparative tendency was not, however, true of vacations. Rather, a strong majority of Solnick and Hemenway's respondents preferred to live in a world in which they had 4 weeks of vacation and everyone else had 8 weeks, than a world in which they had 2 weeks of vacation and everyone else had 1 week. No matter how one's own vacation time compared to everyone else's, more vacation was deemed better.

The difference between evaluating a purchase relative to other options, rather than on its own merits, is something akin to the distinction between joint evaluation (JE) and separate evaluation (SE). When given the opportunity to compare two objects side-by-side, people will attend to, and be swayed by, different attributes and criteria than when evaluating each one separately (Hsee, 1996; Hsee, Loewenstein, Blount & Bazerman, 1999). Experiences tend to be evaluated as if they were always in SE, whereas possessions tend to be evaluated as if they were always in JE. This is due, in part, to the tangible nature of material possessions. It is no large feat to look at two televisions sitting next to each other on the showroom, compare their a/v inputs, features, and image quality, and choose the better one (Zhang & Markman, 2001). Comparing two vacation packages is not quite so simple. Although there might be some obvious points of easy comparison (e.g. price, weather), many will be purely hypothetical, remote and difficult. One might have no trouble imagining the experience of walking on a beach in Hawaii or in Aruba, but comparing the Hawaiian to the Aruban beach would require extensive, difficult, and probably inaccurate "mental time-travel" (Gilbert, 2006). Notice that possessions typically do not suffer from this same problem. One does not need to imagine what it would be like to own a television; the experience of watching it can be fully simulated in the store.

Alignability

One might expect the ability to make comparisons to be advantageous, especially when choosing from a large array. Material goods, more so than experiences, often have clearly defined attributes that can more easily be aligned for comparison. For example, one can compare cars on their cost, gas mileage, internal and external size, road clearance, horsepower, color, suspension, ground clearance, tires, and the presence or absence of dozens of cabin amenities. In each comparison, there is a clear winner and loser. One can also compare vacations on their weather, duration, cost, and the star rating of the hotel, but many of the most important features of a vacation are somewhat intangible or subjective, like the quality of the nightlife, the quality of the local culture, whether it involves water or snow skiing. Research on product attribute alignability has demonstrated several advantages for products that are more alignable. For example, the ability to align attributes makes it easier to detect differences between products (Gentner & Markman, 1994) and can make the choice of one option over another more justifiable (Markman & Medin, 1995). Under most conditions, it is the alignable attributes of products that most contribute to the formation of preferences (Zhang & Markman, 2001). It has also been shown that people are more satisfied with both the choice process and the outcome if the choice array allows one to align and compare attributes (Herrmann, Heitmann, Morgan, Henneberg & Landwehr, 2009; Zhang & Fitzsimons, 1999), largely because making comparisons between products with a lot of alignable attributes is less mentally taxing than comparing products with non-alignable features (Markman & Gentner, 1997). Indeed, it takes considerably more motivation to use non-alignable attributes when forming preferences and making decisions (Zhang & Markman, 2001).

If material possessions tend to be more alignable, shouldn't the decision process and the outcome be more satisfying? It may very well be the case that, when

faced with a large number of options, one is most likely to be confident that the best option was chosen if one can actually make all of the appropriate comparisons. However, these ideal conditions are often absent in the real world, with unbounded choice arrays and imperfect information about the products involved. Also, the research cited above presupposes that the ability to make comparisons is necessary for one to be happy with the choice process and the outcome. The presence of non-alignable attributes may not actually be problematic for experiences, if indeed the evaluation of experiences is not done in comparative fashion. For possessions, on the other hand, these comparisons are necessary, so any barriers to making the comparisons would have a negative impact on satisfaction with the choice process.

What's more, engaging in a lot of comparisons, particularly of alignable features, increases memory for the unchosen options (Markman & Gentner, 1997), thus increasing the chances for regret. If the chosen product performs less than perfectly, a good memory for the unchosen options makes it more likely that one will make unfavorable post-choice comparisons and ultimately regret the decision, or become prematurely attached to an unchosen option (Carmon, Wertenbroch & Zeelenberg, 2003). Evaluating in a comparative fashion, as is the case with possessions, subjects one to these pitfalls. The more absolute evaluations of experiences can help one nicely sidestep them.

This difference in the tendency to evaluate comparatively has several notable consequences. Part 1 of this chapter explores the impact this has on search strategies prior to making a choice, as well as after a choice is made. In Part 2, I examine whether the tendency to evaluate comparatively and engage in different decision strategies for possessions has negative consequences for the difficulty of the decision process, satisfaction with the outcome, and even momentary mood. In Part 3, I test

whether, even when negative comparative information is held constant, it has a greater hedonic impact on possessions than experiences.¹

Part 1: Differences in comparison to other options pre- and post-choice

As Barry Schwartz argued in *The Paradox of Choice* (2004), we are living in a world of “consumer hyperchoice.” As manufacturing and information technology has improved, consumers have gotten savvier and more demanding in their preferences, and manufacturers are happy to indulge them, dividing up once simple purchase categories into smaller and smaller niches. As such, the number of options available within any one category has simply exploded. For example, The Finger Lakes Beverage Center in Ithaca, NY specializes in craft beer and gourmet soda, boasting of its enormous selection. At last count, they had over 900 different types of beer and over 140 different types of soda. This includes a large number of domestic and imported microbrews, but doesn’t include many of the offerings from the smallest and only regionally distributed breweries, nor does it include many of the myriad variations on a theme on offer from the major soda companies (e.g. diet caffeine-free Coke with lemon). It is quite likely that within such a daunting array of options, one could find the particular beer that best matches one’s preferences. But how is one to choose? It would take an extremely long time and a great deal of money (not to mention liver damage) to find such a beer. And since preferences shift with time, food pairing, mood, and even weather, the perfect beer one day might be an imperfect choice the next. It is no surprise that people faced with such a dizzying array often opt not to choose any of the options (Iyengar & Lepper, 2000), finding the whole thing altogether too much trouble.

¹ Portions of the introduction to Chapter 2 are a modified version of discussion that appears in Carter and Gilovich (in press, *Journal of Personality and Social Psychology*, The Relative Relativity of Material and Experiential Purchases).

Part of the problem with hyperchoice is the very expectation that one can search for, and find, the very best option. *Maximizing* refers to this very decision strategy. After compiling and comparing all of the available options, the best possible option is selected. Although typically effective in terms of obtaining the objectively best outcome, the strategy is time intensive, and frequent use of the strategy is associated with negative psychological consequences (Schwartz et al., 2002) and, in some circumstances, with less satisfaction with objectively superior outcomes (Iyengar, Wells & Schwartz, 2006). Indeed, the mere act of contemplating other options appears to make the foregone options more attractive (Carmon et al., 2003), which can increase regret and disappointment. The alternative to maximizing is referred to as *satisficing*. This is a decision strategy whereby a minimum standard for overall quality is set, and the first option that meets that standard is selected (Simon, 1955). Although satisficing saves the decision-maker from an exhaustive (and often exhausting) search and guarantees that the chosen option will meet the minimum criteria, it leaves open the possibility that other options would have been better.²

The aim of Part 1 is to show, first, that when faced with an array of experiences, one is more likely to engage in a satisficing strategy, and when faced with an array of possessions, one is more likely to engage in a maximizing strategy. This is due to the fact that the greater tendency to engage in comparisons for material purchases is a greater “fit” to the maximizing strategy. This is the focus of Studies 1 and 2.

² Although the maximizing/satisficing distinction is often described as an individual difference variable (Schwartz et al., 2002), it is also assumed that people may be maximizers in some domains, and satisficers in others (Schwartz, 2004). The focus here is whether people are more likely to satisfice when it comes to experiences and more likely to maximize when it comes to possessions, over and above any general predisposition to maximize or satisfice.

If, faced with so many options, people either opt not to choose, or opt for a search strategy that does not guarantee the best outcome, is it troubling that people are not finding the perfect match for their preferences? In the case of experiences, I argue that the answer is no. Although the Dogfish Head 60-minute IPA might not be the best possible match for my taste buds at the moment I take that first cold sip, as long as the experience is a reasonably positive one, it is unlikely to matter. The experience itself is engrossing, and it is not simply the alcohol that leads the foregone options to slip out of memory. That is, even though a great deal of comparative information is available, the experience is evaluated on its own merits, and not in comparison to what might have been. Thus, although one might be tempted to seek out comparative information in order to evaluate a material purchase, that would not be the case for an experiential purchase. The second aim of Part 1 is to examine this idea. It is predicted that, after a choice is made, relative to the experiential case, people will be more interested in comparing their chosen possession to the foregone options, for two reasons. First, the same motives that initially led to a maximizing strategy at the decision phase (i.e. concern that one gets the best possible outcome) will also be evident at the post-purchase evaluation phase, prompting more comparisons back to the foregone options. Second, the more comparative evaluation of possessions demands that, if an evaluation is to be made at all, one needs comparative information. The most obvious points of comparison, quite often, are the options one did not choose.

Study 1: Exploring a purchase array

If, as I propose, people are less inclined to compare different experiential purchases than different material purchases, they should be less likely to use the maximizing strategy when making experiential purchase decisions, as the strategy relies on extensive comparisons. Rather, people may be more likely to opt for the

simpler satisficing strategy when making experiential purchase decisions, perhaps obtaining a worse outcome, but feeling better about it (Iyengar et al., 2006). That is, given that people tend to engage in more comparisons for material than experiential goods, the maximizing strategy is a better fit for material purchase decisions, and the satisficing strategy is a better fit for experiential purchase decisions.

In Study 1, participants were presented with an array of either material or experiential purchase options, and given the opportunity to examine the purchase options in more detail before ultimately making a choice. From the pattern of exploration behavior, one can gauge whether participants are engaging in more of a satisficing decision strategy, characterized by exploration more focused on a particular subcategory of options, or more of a maximizing decision strategy, characterized by broader exploration of different types of options.

Method

Participants. Sixty-nine participants completed the study in exchange for extra credit in a psychology or human development course.

Materials. Two different choice sets were constructed, one comprised of 12 material possessions (electronics) and the other of 12 experiences (vacations) to serve as the between-subjects manipulation of purchase type. Each choice set, in turn, consisted of three subcategories of 4 options each. For the electronics choice set, the subcategories were digital cameras, “surround” sound systems, and flat screen televisions. For the vacations, the subcategories were beach vacations, city vacations, and ski vacations. Each option was described by two qualitative features uniquely applicable to that particular option, and by two quantitative details. For example, one of the qualitative features of one of the digital cameras was “in-camera image stabilization and anti-dust vibration systems,” and one of the qualitative features of one of the beach vacations was “short walk to bars, restaurants and other nightlife.”

The quantitative details were the cost of the option and a quality/desirability rating—from Consumer Reports for the gadgets and from TripAdvisor.com for the vacations. The prices (ranging from \$799-\$1899) and the ratings (ranging from 2.63-4.94) were perfectly correlated to reinforce the impression that the prices and ratings were valid. The specific numbers for the cost and ratings were identical between conditions, and were assigned to a given purchase according to two different random pairings. For example, in one version, both a Canon digital camera and a vacation to Maui were priced at \$999 and given a rating (Consumer Reports and TripAdvisor.com, respectively) of 3.05. Thus, any difference between conditions in participants' perusal of the different options cannot be attributed to any differences in these quantitative elements of the information associated with the material and experiential items. Participants were randomly assigned to see either the material (electronic gadgets) or the experiential (vacations) choice set.

Procedure. Participants were brought to the lab to participate in a study about decision-making. They were told that they were going to see information about a number of different purchase options, and would be asked to choose one of the options. To increase their involvement in the process, they were asked to try to “get inside the head” of someone actually tasked with making a decision from the option array. They were first passively exposed to all of the information about every option in the choice set (consisting of a picture and label, plus the four details) for 5 seconds each.

They were then given the chance to explore the options more actively by clicking on an image of any of the options to reexamine the information about it. Which options participants clicked on and how long they spent examining it before returning to the option array was recorded. Once the participant was finished exploring, the option array was again presented on the screen without any information

about the choice except for the picture, name and subcategory, and participants were asked to choose one option.

After making a decision, participants were asked about how happy they were with the choice, how happy they were with the decision process, how difficult the decision was, how much effort they put into the choice, and whether they were evaluating each option more on its own merits, or more in relation to the other options (all questions answered on 7-point Likert scales).

The main measure of interest was participants' exploratory behavior, measured as the number of times participants clicked on the options. Based on the search tendencies one would expect to see if someone were engaging in a maximizing or satisficing strategy, three different exploration categories were defined: clicking on the purchase they ultimately chose, on the other purchases in the same subcategory as their choice, and on other purchases outside the subcategory. A maximizing strategy would involve exploring more broadly, especially those outside the subcategory. A satisficing strategy would involve exploring predominantly within a given subcategory, and focusing on the purchase that is ultimately chosen. Thus, the experiment is a 2 (Choice type: material vs. experiential) x 3 (Exploration category: chosen option vs. within-subcategory vs. outside-subcategory) mixed-factorial design, with the first factor manipulated between participants, and the last within.

Because it is expected participants in the experiential condition will be employing more of a satisficing approach to the decision, it is expected that they will limit their exploration behavior to the option they ultimately choose and the other items in the same subcategory. Conversely, it is expected that participants in the material condition will take a more maximizing approach, and will widely explore the different options in all of the subcategories before making their choice. Thus, it is predicted that there will be an interaction between choice type and exploration

category, such that participants in the experiential condition are spending more time looking at the purchase they ultimately choose, and participants in the material condition will spend more time looking at the options outside the subcategory before ultimately making their decision. Because participants in the experiential condition are expected to spend time examining other options in the same subcategory as part of their satisficing strategy, and participants in the material condition to spend time examining all of the options, there is not expected to be a difference between conditions in time spent looking at options in the same subcategory as the chosen option.

Results

Due to significant skew, the number of clicks on each of the different categories was subjected to a natural log transformation (first adding 1 to allow for values of zero).

It is predicted that participants in the experiential condition will be engaging in more of a satisficing strategy, and as such, will spend more time examining the option that they ultimately choose, and less time looking at the options outside their chosen option's subcategory. This hypothesis was reasonably well supported. First, the 2 (Purchase type) x 3 (Exploration category) mixed-model ANOVA revealed a significant main effect of exploration category, $F(2, 134) = 4.10, p < .05$. It also revealed the predicted Purchase Type X Exploration Category interaction, $F(2, 134) = 3.28, p < .05$. Planned comparisons confirm the predicted pattern of means. Participants in the experiential condition spent marginally more time examining the option they ultimately chose, $t(134) = 1.79, p < .08$, and marginally less time examining options outside the chosen purchase's subcategory, $t(134) = -1.81, p < .08$. There was no difference between conditions in time spent examining options within the chosen subcategory, $t < 1$.

Perhaps the most trenchant comparison of exploration would be the percentage of the clicks participants made in each of the three categories. However, because the percentages are not independent of each other (an increase in percentage of clicks in one category necessarily decreases the percentage of clicks in another), any statistics performed on them would be suspect. Nonetheless, as they provide the clearest visual representation of exploration tendencies, these percentages are depicted in Figure 1.

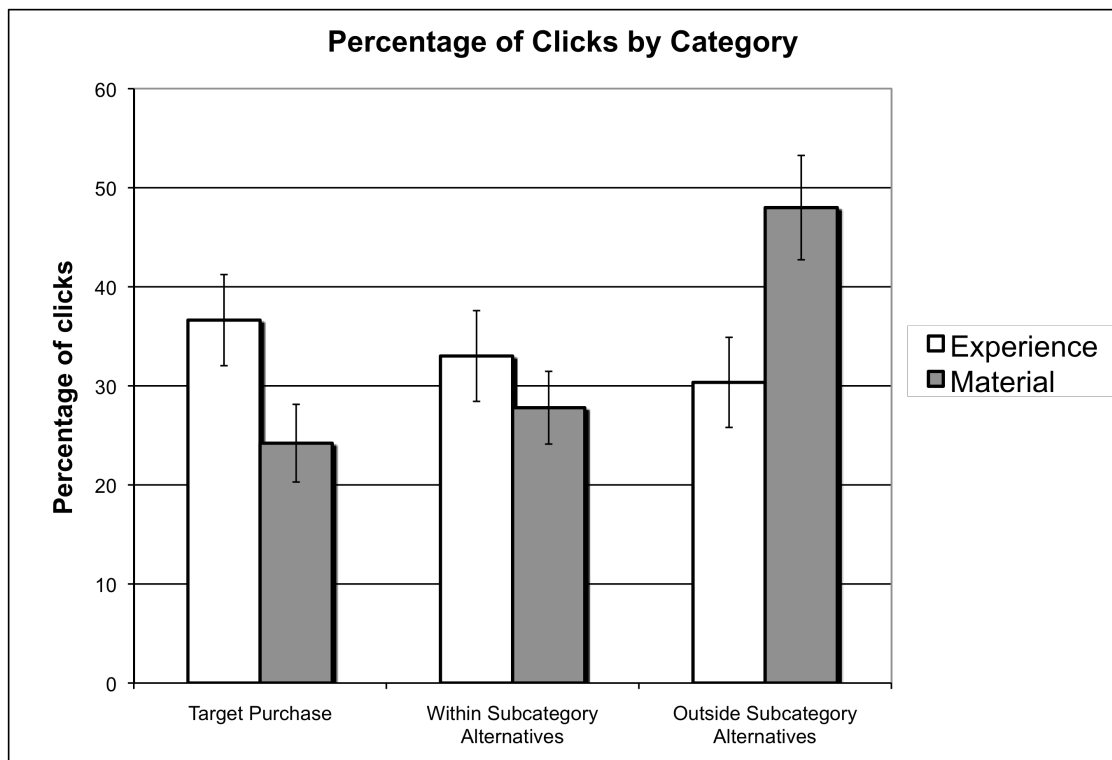


Figure 1: Percentage of clicks by category

Although participants reported being just as happy with the outcome of their choices (all t 's < 1), happiness with the decision process did vary by purchase type. Participants were happier with the decision process in the experiential ($M = 5.26$, $SD = 1.04$) than in the material condition ($M = 4.53$, $SD = 1.26$), $t(67) = 2.62$, $p = .01$. Counter to predictions, participants did not report the decision being significantly

easier in the experiential condition than in the material condition ($t < 1$), nor did participants report evaluating the options more on their own merits (rather than in comparison to other options) in the experiential condition ($t < 1$).

Discussion

This first study provides initial evidence that participants faced with an array of experiential purchase options tended to approach the decision in a manner that resembled satisficing, whereas participants faced with an array of material purchase options opted for a more maximizing approach. Participants seemed more willing to make comparisons across subcategories of electronics than to make comparisons across subcategories of vacations. One problem inherent in using specific exemplars to represent a broad category of purchases is that one can always wonder whether the effect is a function of comparing vacations and electronics, rather than experiential and material purchases (an issue to which I return below). For example, a critic might take issue with the use of different subcategories of electronics being more dissimilar than different subcategories of vacations. A beach vacation and ski vacation, while their features might be different, are both still vacations. A digital camera, on the other hand, is quite different from a flat-screen television. One might expect that comparisons between categories would thus be more difficult for the electronics than the vacations, but note that this would, if anything, lead to the opposite pattern of results. Ease of comparison across subcategories would most likely lead one to explore more broadly, rather than primarily examining one subcategory, as was the case for participants in the experiential condition. This suggests that surface similarities among the options in a purchase array are not the only factor in determining how one will approach the decision.

One aspect of Study 1 that did not conform to predictions was participants' self-reported happiness with the decision, the difficulty of the decision, and how they

felt they compared the various options (in more absolute or more relative terms). I believe there are several reasons why this prediction was not confirmed. First, because the decision was entirely hypothetical, it may be difficult to evaluate how pleased one would be with an outcome one will never actually get to experience. Indeed, participants generally felt happy with their decision, and with considerable consistency, as evidenced by the relatively low variance ($M = 5.87$, $SD = 0.80$). Second, and related to the first, there was behavioral evidence that participants did approach the decision differently, but one would not expect that a maximizing approach would always lead to less happiness with the outcome (cf. Iyengar et al., 2006), especially when the number of options to be considered is manageable. Indeed, a maximizing approach should be more likely to lead one to make the best possible choice, with little chance for regret or negative counterfactuals, when the array is sufficiently small. Consistent with this, participants did not consider the decision itself particularly difficult on average ($M = 3.86$, $SD = 1.42$). Perhaps the observed differences would be even more pronounced with a larger array of options. Finally, given the lab setting and the parameters of the particular task they were asked to perform, it is likely that participants felt an implicit expectation to report having compared the options, rather than having evaluated them on their own merits.

Its flaws notwithstanding, the behaviors exhibited by participants in Study 1 were largely consistent with the hypothesis. Participants explored an experiential purchase array in a manner suggestive of satisficing, and explored a material purchase array in a manner evocative of maximizing. Study 2 is designed to determine whether this pattern mimics how participants report approaching actual purchase decisions.³

³ Study 2 is a modified description of Study 2 in Carter and Gilovich (in press, *Journal of Personality and Social Psychology*, The Relative Relativity of Material and Experiential Purchases).

Study 2: Retrospective Maximizing and Satisficing

If there is a better “fit” between the maximizing strategy and material purchase decisions (and between satisficing and experiential purchases), this pattern should be evident in the strategies people pursue in their actual purchase decisions. In this study, participants were asked to recall both a material and experiential purchase, and to report which strategy they tended to use for each. It was predicted that participants would report that they had tended to use a maximizing strategy when making their material purchase and a satisficing strategy when making their experiential purchase.

Method

Participants and procedure. Thirty participants were recruited at various points around campus to complete a short survey.

Materials. To examine how people approach decisions about material and experiential purchases, participants were asked to recall both a material and an experiential purchase they had made when faced with a large array of options (counterbalancing the order of recall). Participants gave a brief label describing each purchase and indicated its cost. The two decision-making strategies (maximizing and satisficing) were then briefly described (order also counterbalanced) and participants were asked to indicate for which purchase they tended to use the maximizing strategy, and for which purchase they tended to use the satisficing strategy on two 9-point scales (1=experience, 9=material, counterbalanced). They also indicated which strategy they tended to use most often, regardless of the type of purchase (also on a 9-point scale, anchored by “maximizing” and “satisficing”).

Results

There were no effects of the order in which participants were asked to recall their experiential and material purchases, or of the order in which the maximizing and satisficing strategies were described, both t 's < 1. There was also no difference in the

average cost of participants' material and experiential purchases, paired $t(26) < 1$.⁴ Finally, participants did not report an overall tendency to maximize or satisfice their purchasing decisions, with the mean rating of 4.97 not significantly different from the midpoint of the scale, one sample $t(29) < 1$.

When asked about satisficing, however, participants reported that they were more likely to use such a strategy for choosing an experience than for choosing a possession ($M = 3.97$, $SD = 2.50$, with higher numbers indicating greater use of the strategy for material purchases), one sample t-test against the scale midpoint, $t(29) = -2.27$, $p < .05$. In contrast, when asked about maximizing, participants reported that they were marginally more likely to use such a strategy when choosing a possession than when choosing an experience ($M = 5.83$, $SD = 2.55$, with higher numbers indicating greater use of the strategy for material purchases), one sample t-test against the scale midpoint, $t(29) = 1.79$, $p < .10$. Combining participants' responses to these two questions in a single analysis, it was evident that participants thought that maximizing was relatively more appropriate for choosing possessions and satisficing was relatively more appropriate for choosing experiences, paired $t(29) = 2.15$, $p < .05$, $d = .75$. Controlling for the cost of participants' experiential and material purchases did not affect this result, $t(24) = 2.22$, $p < .05$.

Discussion

The results of this study reinforce those obtained in Study 1, using actual purchases participants had made. When asked specifically about maximizing, participants said they were more likely to use it for selecting material possessions than

⁴ Due to considerable skew, the cost of each purchase was subjected to a natural log transformation. This procedure was followed in all subsequent studies where participants reported the cost of a purchase. In this study, three participants did not report a quantifiable cost of their material or experiential purchase. Their responses were included in all analyses except those involving cost, hence the lowered degrees of freedom for those analyses.

for selecting experiences. When asked about satisficing, participants said precisely the opposite. These findings coincide the patterns of exploration behavior exhibited by participants in Study 1.

Study 3: Post-choice comparisons

As Studies 1 and 2 demonstrate, people appear to approach material and experiential choices differently. Prior to making a decision, the greater ease of making comparisons between material possessions led participants to do so, tending to explore more potential purchase options. The aim of Study 3 is to show that participants are still interested in engaging in comparisons after the choice is made. Using a slight variation on the paradigm used in Study 1, participants were asked to make a choice before having a chance to fully explore all of the options. In this case, it is expected that participants in the material condition will be looking to evaluate their choice by comparing it to the foregone options, and as such, will spend more time exploring and comparing the chosen option to the unchosen options.

Method

Participants. Seventy participants completed the study in exchange for extra credit in a psychology or human development course.

Materials and procedure. The materials and procedures were identical to those used in Study 1, except that the order in which participants explored the array and made a choice was reversed. As in Study 1, participants were asked to get inside the head of a person actually tasked with making a decision from either an array of 12 material possessions (electronic gadgets) or an array of 12 experiences (vacations), each with three subcategories, and were all passively exposed to all of the information about each purchase option (in a random order) for 5 seconds. However, instead of having the chance to explore the purchase array before making a choice, participants

were asked to choose from the purchase array based purely on their passive exposure to the information. All of the options were arrayed on the screen in a random order, without any information about the choice except for the picture, name and subcategory. After making their selection, participants were given the chance to explore the options at their leisure. The choice array was again presented on the screen, but now participants could click on the options to see their details. Participants were free to explore the options for as long as they wished, and each click was recorded.

After they had finished exploring, participants were asked about how happy they were with the choice, how happy they were with the decision process, how difficult the decision was, how much effort they put into the choice, and whether they were evaluating each option more on its own merits, or more in relation to the other options, all on 7-point Likert scales. Given that there were no differences between conditions when these same questions were asked of participants in Study 1, these were considered to be somewhat exploratory.

As in Study 1, the main measure of interest was participants' exploratory behavior, in terms of the number of times participants clicked on the options, using the same definitions of exploration categories. Thus, the experiment uses the same 2 (Choice type: material vs. experiential) x 3 (Exploration category: chosen option vs. within-subcategory vs. outside-subcategory) mixed-factorial design as Study 1.

In Study 1, the exploratory behavior was prospective, part of the decision process, presumably done with the intention of making a better choice. In this case, because the exploration happens after the choice, the exploratory behavior is retrospective. Participants were presented with a lot of information in a relatively short amount of time, and then asked to make a choice based on that limited information. Presumably, participants were not terribly confident in the decision process, and, when

given the chance to explore the options, they did so in an attempt to evaluate their chosen option, comparing it to the foregone options. Because participants in the experiential condition are expected to be less concerned that they made the best possible choice, and furthermore, are less inclined to evaluate it based on comparisons to other options, it is predicted that they will engage in less exploration of the unchosen options in the experiential condition than in material condition. Participants in both conditions are likely to spend at least a little time examining the chosen option, but for participants in the experiential condition, one confirmatory examination of the information should suffice. Participants in the material condition, on the other hand, would need to go view the information about the chosen option several times in order to compare it to the other options. Thus, it is predicted that there will be only a main effect of choice type, and no interaction with exploration category.

Results

Due to significant skew, the number of clicks in each of the different categories was subjected to a natural log transformation (adding 1 to allow for values of zero), as in Study 1. The back-transformed means are depicted in Figure 2.

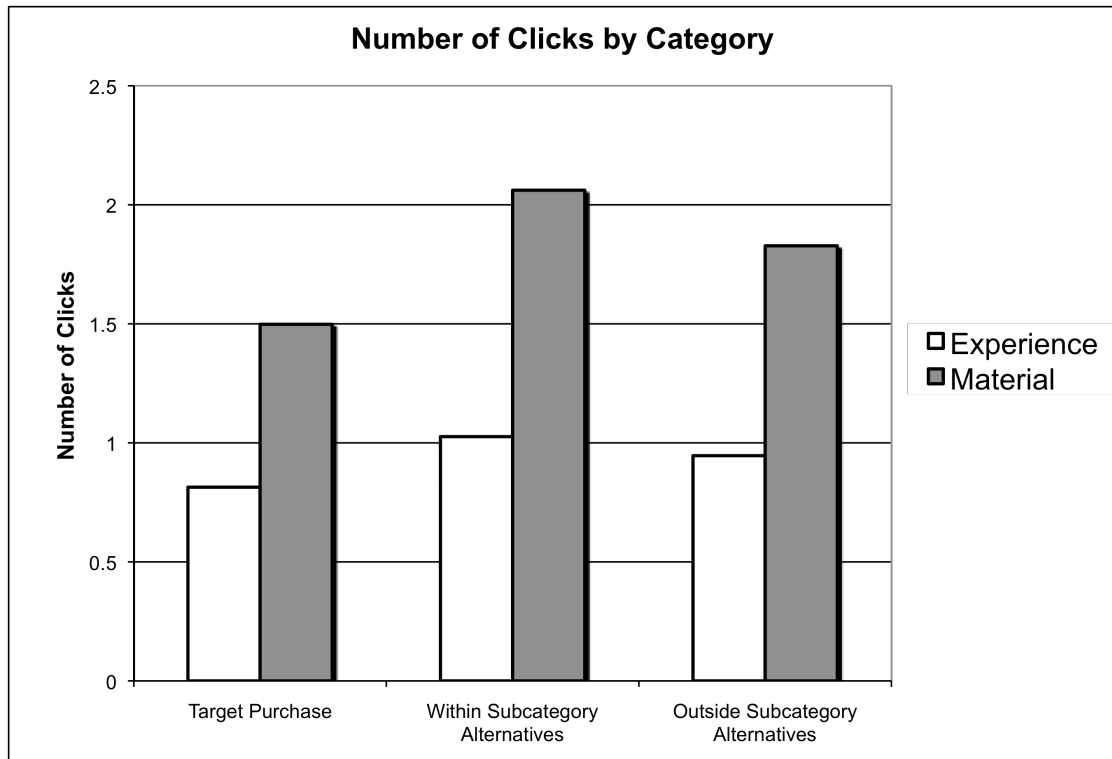


Figure 2: Number of clicks by category (back-transformed)

The hypothesis that participants would spend more time exploring a material purchase array than an experiential purchase array was supported. Conducting a 2 (Purchase type) x 3 (Exploration category) mixed-model ANOVA predicting the number of clicks in each of the categories, there was only a significant main effect of purchase type, $F(1, 68) = 7.79, p < .01$. Overall, participants in the experiential condition engaged in less exploratory behavior than participants in the material condition in all exploration categories.

There were no significant differences between the conditions on any of the self-report measures. Participants in the experiential condition reported being just as happy with their outcomes as participants in the material condition (all t 's < 1), even though they used different strategies to evaluate the choice. However, given the null

findings for the self-report questions in Study 1, this is not entirely surprising, and should be interpreted with caution.

Discussion

As expected, participants in the experiential condition engaged in less post-choice exploration of the unchosen options than did participants in the material condition. I believe there are two reasons for this pattern, one based on how evaluations are made, and one based on the strength of the motive to make evaluations. Because material possessions are evaluated more comparatively, participants in the material condition would need to make more comparisons in order to assess their choice. In addition to the difference in how evaluations are made, participants in the material condition may have been more concerned about evaluating the quality of their choice. This is consistent with using a maximizing strategy for material purchases, as demonstrated in Studies 1 and 2. Although participants in both conditions appeared to be reasonably happy with the choice they made, participants in the experiential condition were apparently content to remain ignorant of the unchosen options. Participants in the material condition, hoping to maximize the decision, might have been more frustrated with the limitations imposed on them, and spent more time exploring the array in an attempt to evaluate the quality of their decision. Put another way, participants in the experiential condition were just as happy as participants in the material condition, but with considerably less effort.

Together, Studies 1-3 provide evidence that, compared with experiences, participants were more interested in engaging in difficult, and potentially problematic, comparisons with other possessions, both as part of the decision process and after a decision is made. In Studies 1 and 3, participants faced with a hypothetical choice from an array of possessions (rather than experiences) engaged in the types of search and exploration behaviors one would expect: they searched more broadly to identify

the best choice, and made more comparisons afterwards, apparently with the intention to confirm this fact. Study 2 confirmed that people engage in a maximizing approach for the material purchase decisions, and a satisficing approach for the experiential purchase decisions they have faced in their daily lives.

Part 2: Consequences of comparative evaluation

The present section is meant to examine the consequences of evaluating purchases more comparatively. Specifically, if people are taking different approaches in evaluating experiences and possessions, both before and after a choice is made, how does this affect satisfaction later on? This question is the focus of Studies 4A, 4B, and 5. It is predicted that, because of the greater reliance on comparisons in evaluating material possessions, the decision-making process will be more difficult, and satisfaction with possessions will ultimately be lower.

Satisfaction, regret, and counterfactuals

There is a very large literature examining the cognitive and affective consequences of consumer choice, and much of it centers on (dis)satisfaction and regret, both of which are the result of comparative processes. Satisfaction is typically defined as being determined by comparing a purchase's performance with one's expectations (Bell, 1985; Oliver, 1980, 1981). One will be satisfied with any purchase that meets or exceeds one's expectations, and one will be dissatisfied with any purchase that falls short of expectations. The experience of regret comes from comparing the performance of the purchase with that of the foregone options (Loomes & Sugden, 1982; Zeelenberg, van Dijk, Manstead & van der Pligt, 2000; Zeelenberg, van Dijk, van der Pligt, Manstead, van Empelen & Reinderman, 1998). If one has information that another option could have been a better choice, one experiences

regret. Thus, satisfaction is the result of an internal comparison, and regret is the result of an external comparison. This suggests that regret and satisfaction are conceptually, and practically, distinct entities (Tsiros & Mittal, 2000; Zeelenberg & Pieters, 1999).

However, if one evaluates not only the decision, but the performance of the chosen option by comparing it to other options, as appears to be the case with material possessions, then the factors that would seem to impact only decision-based regret might also have a negative impact on satisfaction. There is some evidence in the extant literature suggesting that this will be the case. The tendency to maximize has been shown to be associated with diminished satisfaction, even with an objectively better outcome (Iyengar et al., 2006). What's more, extensive deliberation (Carmon et al., 2003), later introspection (Wilson & Schooler, 1991; Wilson, Lisle, Schooler, Hodges, Klaaren & LaFleur, 1993), and the difficulty of a choice (Iyengar & Lepper, 2000) have all been linked with reduced satisfaction.

Regret is considered to be a counterfactual emotion (e.g. Kahneman & Miller, 1986; Roese, 1997; Zeelenberg & Pieters, 2007; Zeelenberg et al., 1998), and one of the easiest sources of counterfactuals when taking a maximizing strategy may be the decision process. That is, a greater number of comparisons initially might make it easier to imagine other states of the world. Indeed, reducing the ability to make comparisons has been shown to reduce the regret (van Dijk & Zeelenberg, 2005). The tendency to maximize does appear to be related to the experience of regret (Zeelenberg & Pieters, 2007). There are a variety of reasons that information that a choice could have been better would lead to greater regret for maximizers. For example, the content of counterfactual thought stems from the causes of the negative outcome (Roese, 1997). Dissatisfied maximizers will likely look to the search and decision process as the cause. Knowledge that a better option was in the array can lead to recriminations of the effort one put forth in the decision or search process,

something akin to a regret of inaction (Gilovich & Medvec, 1995). Indeed, one of the most common forms of regret people report about their life decisions comes from not taking advantage of available opportunities (Roese & Summerville, 2005). In the choice domain, this might mean not taking full advantage of the information available within the choice array. Feeling more responsible for the decision process, as maximizers are likely to be, leaves one susceptible to counterfactual thoughts about the decision process, which in turn, negatively impact satisfaction (Markman & Tetlock, 2000), especially over time (Ritov, 2006).

Additionally, negative outcomes lead to more spontaneous counterfactual thought than positive outcomes (Gilovich, 1983; Kahneman & Miller, 1986; Markman, Gavanski, Sherman, & McMullen, 1993; Roese & Olson, 1995; Tsiros & Mittal, 2000), which then amplifies the affective response (Johnson, 1986; Kahneman & Miller, 1986; Kahneman & Tversky, 1982; Landman, 1987, 1993; Medvec, Madey, & Gilovich, 1995; Meyers-Levy & Maheswaran, 1992; Walchi & Landman, 2003; Zeelenberg, van Dijk, van der Pligt, Manstead, van Empelen & Reinderman, 1998). In the case of material purchases, if one has made a large number of comparisons to other options, it might be easier to generate these counterfactuals when the outcome is not what is expected. If, as was demonstrated in Study 3, people are more inclined to make post-choice comparisons for possessions, they are more likely to encounter negative comparative information, and thus, engage in counterfactual thought.

If engaging in more post-choice comparisons is likely to expose one to more negative (upward) comparative information, must it not also be more likely to expose one to positive (downward) comparative information? While this might be true, positive comparisons do not appear to have the same degree of impact that negative comparisons do. For example, learning that one paid too much seems to have a larger impact on satisfaction than learning that one paid too little (Cooke, Meyvis &

Schwartz, 2001). Interestingly, even when one does engage in downward counterfactuals, they do not necessarily mitigate the experience of regret. In one study, participants were induced to engage in upward counterfactual, downward counterfactual, or no counterfactual thought. Participants in both of the counterfactual conditions reported experiencing more regret than the baseline condition (Walchi & Landman, 2003). The authors contend that counterfactuals can lead to both assimilation and contrast processes, creating this pattern of results. In addition, in this particular case, because participants were induced to make upward or downward counterfactual comparisons, the ease or difficulty of those comparisons might influence how it will impact the experience of regret (Schwarz, 2004). Similarly, unrealistic counterfactual thoughts, which presumably have some metacognitive disfluency, do not create the same degree of self-recrimination as realistic counterfactual thoughts, which presumably have a higher level of metacognitive fluency (Sevdalis & Kokkinaki, 2006).

The following three studies were designed to test the hypothesis that, because of their more comparative nature, material purchase decisions will be more difficult. What's more, it is predicted that participants will be more likely to spontaneously make comparisons with other material possessions, and that the act of making more comparisons will lead to more counterfactual thoughts that unchosen options could have been better. It is predicted that these comparison processes partly explain why material possessions are ultimately less satisfying than experiences.

Studies 4A and 4B: Consequences of Retrospective Comparisons

The goal of Studies 4A and 4B was to have participants recall actual material and experiential purchases they had made, and report about the difficulty of the decision, to see how the decision process and its aftermath related to satisfaction.

Study 4A focuses on the experience of counterfactual thoughts, and how they related to current satisfaction, while Study 4B focuses on the impact of thinking about a material or experiential purchase on present mood.⁵

Study 4A: Past Difficulty and Present Concern

The aim of Study 4A was to determine whether the act of deciding between different material purchases is experienced as more difficult than deciding between different experiential purchases. Participants recalled either a significant material or experiential purchase they had made when faced with a large number of options (to ensure that the purchase decision was, in fact, a decision). Participants then answered a number of questions about how difficult the decision was and their thoughts about the unchosen options after the decision was made. It was predicted that material purchase decisions would be more difficult than experiential purchase decisions, and that the sense of difficulty would linger and affect participants' current feelings about the decision.

Participants also reported both their initial and current satisfaction with the purchase. Thus, it is possible not only to look at differences in participants' satisfaction with the different types of purchases and how satisfaction changed over time, but also to examine whether any differences in satisfaction are related to the initial difficulty in making the decision and any lingering thoughts about the wisdom of the decision. It was predicted that the lingering thoughts of unchosen material options would be associated with reduced current satisfaction.

⁵ Study 4A is a modified description of Study 1 in Carter and Gilovich (in press, *Journal of Personality and Social Psychology*, The Relative Relativity of Material and Experiential Purchases).

Method

Participants and procedure. One hundred forty-two participants completed the survey (92 female, 50 male) while waiting to participate in other studies.

Materials. The survey first asked participants to recall either a material or an experiential purchase that had cost at least \$50 (to ensure that it was of sufficient importance to generate continued thought). They were asked to provide a brief description of the purchase and to indicate how much it cost, how long ago it was made, and how important it was (on a 7-point scale, 1=not at all important, 7=very important).

Because it was important to know how participants felt about the decision at the time, the survey included three questions assessing the difficulty of the decision at the time it was made: (1) a direct question about the difficulty of the decision, (2) a question about how concerned they had been about whether they had made the right choice, and (3) a question about how torn they had been between the option they chose and the other options. Participants' responses to these questions (each made on a 7-point scale) were combined into a composite score of *past difficulty* with the decision ($\alpha = .72$).

It was also important to see if participants' thoughts about the decision lingered, so three questions were included assessing how participants were currently thinking about it. These questions assessed (1) their concern about whether they had made the right choice, (2) their concern about whether another option might have been better, and (3) how often they thought about whether other options might have been better. Participants' responses to these questions (each made on a 7-point Likert scale) were combined into a composite measure of *present concern* ($\alpha = .75$).

To get a sense of how they had approached the purchase decision, participants were asked whether they had thought of the purchase more in absolute terms, or more in comparison to other, similar items (also on a 7-point scale).

Finally, participants were asked about both their initial and current satisfaction with the purchase (both on a 7-point scale, 1=not at all satisfied, 7=very satisfied). Because responses to the satisfaction questions might influence responses to the past and present concern measures (and vice versa), whether the two satisfaction questions came at the beginning or end of the survey was counterbalanced.

Results

Manipulation check. To confirm that participants actually recalled purchases that adequately fit the assigned material or experiential category, three independent raters viewed each of the descriptions provided by participants, and rated the degree to which each purchase was a material possession or an experience (1 = definitely material, 7 = definitely experiential, 4 = does not fit either category). Raters saw only the participants' written descriptions and thus were blind to condition and any other potentially biasing information. The ratings were sufficiently reliable ($\alpha = .91$), so they were averaged together. Not only were the two conditions significantly different from each other, $t(140) = 16.53, p < .0001$, both conditions were significantly different from the scale midpoint in the expected direction, both t 's $> 7.49, p$'s $< .0001$. It appears that the manipulation was successful.⁶

⁶ It should be noted that the distribution of raters' scores was bimodal, indicating that participants not only understood the instructions, but had little difficulty coming up with purchases that fit either category. Indeed, only 16% ($n=23$) of the purchases were rated as being somewhat ambiguous, receiving an average rating of greater than or equal to 3.0 and less than or equal to 5.0. If, instead of analyzing the data by assigned condition, these ratings are used to create three categories (experiential, material, and ambiguous), the results mirror those using the assigned conditions for the material and experiential categories, with the ambiguous categories falling in between.

Because the amount of time since the purchase was made and the cost of the purchases were skewed, these data were transformed to natural logs and the transformed data were used in all analyses involving these measures. This procedure was followed in subsequent studies as well. There was no difference between conditions in how much the purchases cost, $t < 1$, although participants did report that the experiential purchases were significantly more important, $t(140) = -2.38, p < .05$, and were made longer ago, $t(137) = -2.56, p < .05$.⁷ This is statistically controlled for in the analyses below.

As predicted, participants in the material condition reported that their purchase decisions had been more difficult ($M = 4.18, SD = 1.25$) than did participants in the experiential condition ($M = 3.03, SD = 1.41$), $t(140) = 5.10, p < .001, d = .86$. Participants' difficulty in deciding reverberated in their current feelings about the choice, as those in the material condition expressed more present concern about their choice ($M = 2.71, SD = 1.33$) than did those in the experiential condition ($M = 2.07, SD = 1.09$), $t(140) = 3.14, p < .01, d = .53$. An ANCOVA revealed that this effect held when controlling for the importance and cost of the purchases, and how long ago the purchase was made, for both the past $F(1,133) = 26.725, p < .001$, and present $F(1,133) = 10.95, p < .01$, composite measures.

In support of the contention that experiences are evaluated in less comparative terms than material purchases, participants in the experiential condition reported that they thought about their purchase decisions in more absolute (less comparative) terms ($M = 4.60, SD = 1.87$) than did participants in the material condition ($M = 3.96, SD = 1.70$), $t(140) = 2.14, p < .05, d = .36$. An ANCOVA revealed that this finding also held

⁷ Three participants' reports of the amount of time since they made their purchase were not quantifiable (e.g. "a long time ago"), hence the slightly lower degrees of freedom for those two measures.

when controlling for the importance, cost, and how long ago the purchase was made, $F(1,133) = 4.42, p < .05$.

Although there was no difference in reported initial satisfaction between participants in the experiential ($M = 6.06, SD = 1.37$) and material ($M = 6.01, SD = 1.01$) conditions, $t(140) < 1, ns$, participants did report more current satisfaction with their experiential purchases ($M = 6.25, SD = 1.06$) than their material purchases ($M = 5.78, SD = 1.19$), $t(139) = -2.47, p < .05, d = .42$.⁸ That is, although participants were quite happy with both purchases initially, their enjoyment has since diverged. Although neither change was significantly different from 0, satisfaction with experiences tended to increase over time, whereas satisfaction with material purchases tended to decrease over time (see Figure 3).⁹ A repeated measures ANOVA confirms this, yielding a marginally significant interaction between time and experimental condition, $F(1, 139) = 3.53, p = .06$.

⁸ One participant did not respond to the current satisfaction question, hence the lower degrees of freedom for this analysis.

⁹ The placement of the satisfaction questions did not influence responses to any of the other questions, nor did it influence responses to the initial satisfaction questions. However, there was a significant interaction between condition and placement for responses to the current satisfaction questions, $F(1,137) = 5.29, p < .05$. That is, the reported main effect of condition on current satisfaction was evident when participants answered the satisfaction questions before the difficulty questions, $t(72) = 3.21, p < .01$, but not after, $t(65) < 1, ns$. I suspect that the act of assessing and reporting their difficulty in making the material decisions induced in participants a feeling of cognitive dissonance, which they resolved by reporting higher current satisfaction (Brehm, 1956).

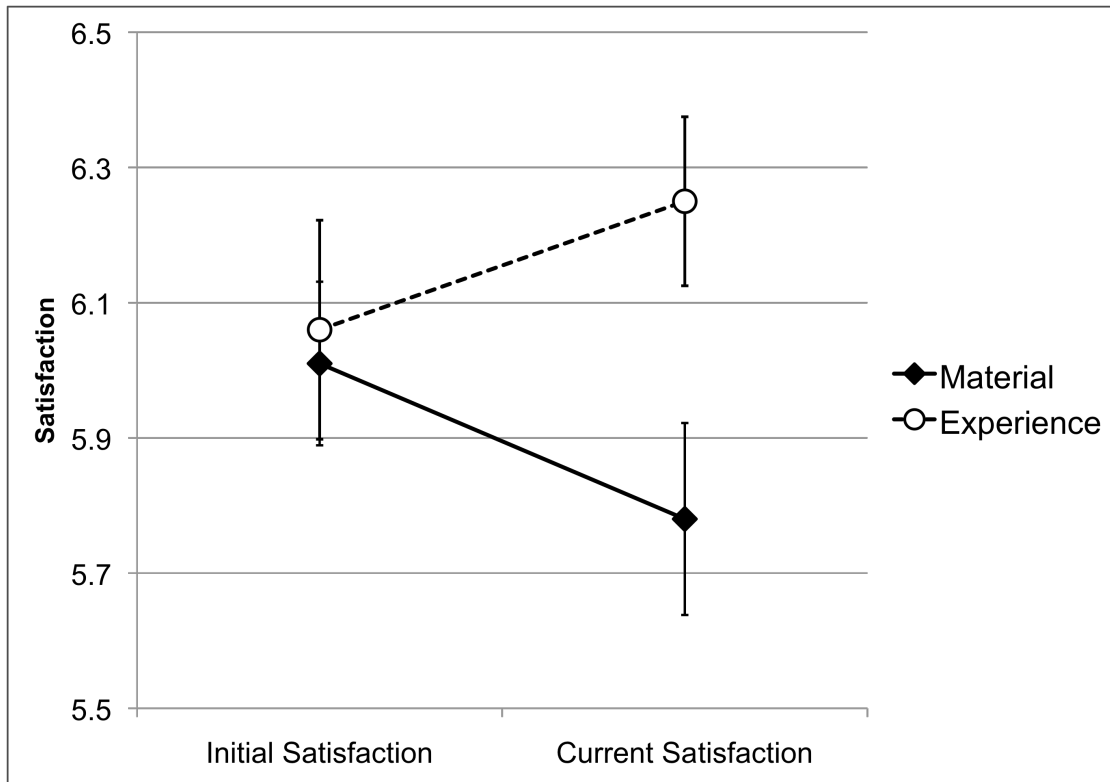


Figure 3: Initial and present satisfaction

Mediational analysis. To examine whether participants found their material purchase decisions currently less satisfying than their experiential decisions because thoughts of better options continued to linger more for the material purchases, a mediational analysis was conducted following the procedures of Baron and Kenny (1986; see Figure 4). Recalling a material purchase rather than an experiential purchase was associated both with significantly decreased feelings of current satisfaction ($\beta = -.41, t = -2.47, p < .05$) and with increased present concern about how the purchase compares with other options ($\beta = .51, t = 3.14, p < .01$). The effect of the mediator (present concern) on current satisfaction remained significant when controlling for material/experiential condition ($\beta = -.44, t = -5.71, p < .001$), but the effect of material/experiential condition dropped to non-significance ($\beta = -.18, t = -1.21, p > .20$; Sobel test: $Z = -2.75, p < .01$). Put more simply, greater present concern

about how their material purchase compared to other alternatives led directly to reduced current satisfaction with the purchase.

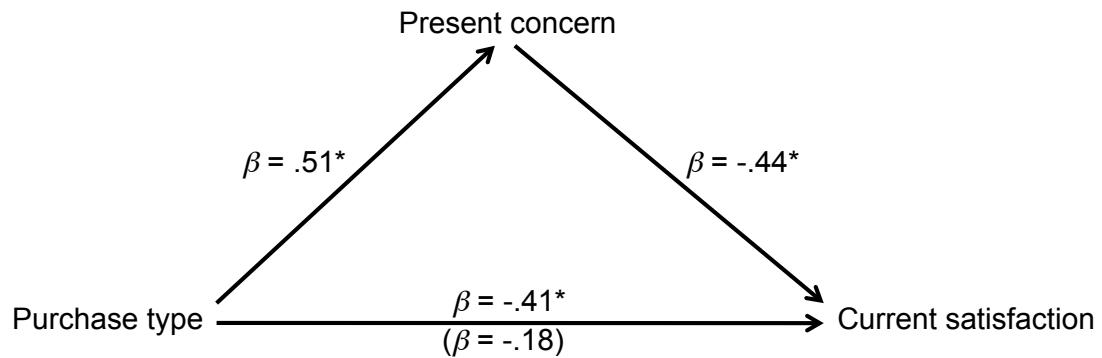


Figure 4: Mediation analysis. Impact of purchase type on current satisfaction is mediated by present concern about unchosen options.

* $p < .05$; + $p < .10$

Discussion

These findings indicate that material purchase decisions are more difficult than experiential purchase decisions at the time they are made, and that concern about those decisions lingers into the present. Material purchases were reported to be currently less satisfying, and this difference was mediated by participants' current concern about the decision and the options foregone. Participants in Study 4A also reported being prone to thinking of their material purchases in more comparative terms, and to thinking of their experiential purchases more on their own merits.

Study 4B: Impact on Mood

Study 4B served two purposes. First, it is intended to test whether people are indeed making more comparisons prior to making a material than experiential decision. The prediction is that people will report considering more options when

making a material than an experiential purchase decision, and that this will lead directly to greater difficulty with the decision. Second, it is intended to extend one of the findings of Van Boven and Gilovich (2003, Study 3), wherein participants reported being in a more positive mood after thinking about an experiential than a material purchase. To the extent that material purchase decisions are more difficult, thinking about the decision-making process should have an immediate negative impact on participants' mood. Although Van Boven and Gilovich (2003) took pains to reduce the possibility that participants reported differences in their mood based on social desirability concerns, the present study eliminates this potential concern altogether by employing a subtle and unobtrusive mood measure.

Methods

Participants and procedure. Eighty-nine participants (65 Female, 24 Male) completed the survey while waiting to participate in other studies.

Materials. Participants received the same instructions as in Study 4A, providing a brief written description, indicating the cost of the purchase and how long ago they had made the purchase. Next, participants indicated how many other options they had considered, how satisfied they were with the purchase, how satisfied they were with the decision process, how important the purchase was, and how difficult it was, each on a 7-point Likert scale (1 = not at all satisfied/important/difficult, 7 = very satisfied/important/difficult). Finally, as an unobtrusive mood measure, participants were asked to list the first 5 words that popped into their head that started with the letter "H". This measure is based on the idea that positive affect is associated with greater accessibility of positive content in memory (e.g. Isen, Shalke, Clark & Karp, 1978). That is, the more positive participants' current mood, the more likely they should be to use words related to positive mood, specifically variants on the word

“happy” (happy and happiness). Because the task is not obviously a mood measure, participants’ responses should not be subject to any self-presentational concerns.

Results and discussion

There were no differences between conditions in cost or how long ago the purchase was made (both p ’s $> .29$).¹⁰ Participants did, however, rate their experiential purchases as more important than their material purchases, $t(87) = 2.29$, $p < .03$, $d = .51$. This is dealt with statistically below.

Difficulty and comparisons. Replicating results from previous studies, compared to the material condition ($M = 3.93$, $SD = 1.45$), participants in the experiential condition ($M = 3.07$, $SD = 1.66$) reported that the purchase was less difficult, $t(87) = 2.62$, $p = .01$, $d = .60$. Additionally, participants reported considering a greater number of options participants in the material ($M = 5.09$, $SD = 8.09$) compared with the experiential ($M = 2.79$, $SD = 3.56$) condition.¹¹ Given a high degree of skew in responses, this difference is confirmed both with a t-test after a natural log transformation, $t(84) = 2.72$, $p < .01$, $d = .57$ as well as the non-parametric Wilcoxon ranked sums test, $z = 2.68$, $p < .01$. Both of these differences hold when controlling for the importance of the purchase (both p ’s $< .05$).

This difference in the number of options considered mediates the conditional differences in decision difficulty, using the standard tests to establish statistical mediation outlined by Baron and Kenny (1986; see Figure 5). I have already demonstrated that the independent variable (purchase type) significantly impacts both

¹⁰ Due to significant skew, how long ago the purchase was made and the cost were subjected to a natural log transformation in all analyses using those measures. One participant’s reported temporal duration was an extreme outlier, and was excluded only from analyses using that measure, hence the slightly lower degrees of freedom.

¹¹ Three participants did not report a quantifiable number of options considered (e.g. “a lot.” Their data are excluded only from those analyses using that measure, hence the slightly lower degrees of freedom.

the dependent measure (decision difficulty) and proposed mediator (number of options considered), the first two necessary steps. The number of options considered (log transformed) remains a significant predictor of decision difficulty when controlling for purchase type, $\beta = .322$, $t(83) = 3.08$, $p < .01$, satisfying the third step, while purchase type drops in significance, as confirmed by the Sobel test, $Z = 2.04$, $p < .05$. Thus, the act of considering more options for material purchase decisions appears to lead directly to the greater difficulty of the decision.

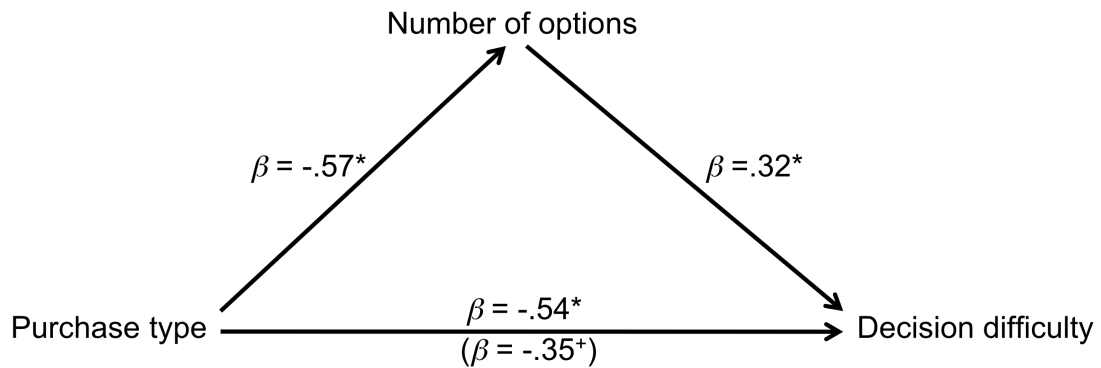


Figure 5: Mediation analysis. Impact of purchase type on decision difficulty is mediated by the greater number of options considered.

* $p < .05$; + $p < .10$

Mood and satisfaction. As predicted, participants in the experiential condition were more likely to use a word related to happiness (33.33%) than participants in the material condition (13.64%), $\chi^2(1, N = 89) = 4.79$, $p < .05$. Controlling for the importance of the purchase in a binary logistic regression analysis, this result remains marginally significant, $\beta = 1.03$, $z = 1.86$, $p = .06$. Participants were in a significantly better mood after thinking about an experiential purchase and its decision process than after thinking about a material purchase and its decision process.

Because satisfaction with the purchase and the decision were highly correlated ($r = .69, p < .001$), they were averaged into a single index of satisfaction. Contrary to expectations, there was no significant difference between conditions in satisfaction ($M_{experience} = 6.02, SD_{experience} = 1.15, M_{material} = 5.84, SD_{material} = 0.93$), $t < 1$. The impact of purchase type on satisfaction appeared to be moderated by the importance of the decision, $\beta = .552, t(85) = 2.72, p < .01$. A test of the simple slopes (Aiken & West, 1991) at 1 SD above and below the mean on importance shows that relatively unimportant experiential purchases were marginally less satisfying than unimportant material purchases, $\beta = -.519, t(85) = -1.83, p = .07$, while highly important experiential purchases were significantly more satisfying than highly important material purchases, $\beta = .586, t(85) = 2.02, p < .05$. Looking at the purchase type and importance interaction from another angle, it can be said that the relationship between satisfaction and the importance of the purchase depended on the type of purchase. Satisfaction with experiential purchases was highly correlated with how important the purchase was ($r = .53, p < .001$), whereas satisfaction with material purchases was not ($r = .02, ns$). This difference is significant, as confirmed by comparing the two correlations after applying Fisher's r -to- z transformation, $Z = 2.56, p = .01$ (see Rosenthal, 1991). Participants' satisfaction with their experiences was positively related to how important that experience was to them, whereas satisfaction with their possessions was independent of the possession's importance. This unexpected finding is perhaps a product of two factors. First, unlike Study 4A, the satisfaction questions did not specify whether to indicate initial or present satisfaction, which may have dampened the differences between conditions. Second, participants might spend more time thinking about important purchases, which might have differing impacts on satisfaction, a positive impact for experiences, and a negative impact for possessions.

This is consistent with the results of Study 4A, wherein participants' post-choice thoughts had a negative impact on their satisfaction in the material condition.

Temporal distance. Looking at how long it has been since the purchase was made, while only correlational, can allow some speculation about how these processes unfold over time. If, as predicted, experiences get embellished in memory, any differences between purchase type on satisfaction and mood should be greater as temporal distance increases. This does appear to be the case. For satisfaction, there was a marginally significant interaction between purchase type and temporal distance, $\beta = .407$, $t(84) = 1.90$, $p = .06$. Indeed, although there was no difference between conditions at shorter durations (-1 SD), $t < 1$, the expected difference between conditions does appear at relatively long temporal durations ($+1$ SD), $\beta = .666$, $t(84) = 2.19$, $p < .05$, according to a test of the simple slopes (Aiken & West, 1991). This is somewhat consistent with the findings of Study 4A, in which there was no difference in satisfaction immediately after the purchase was made, but there was a difference in present satisfaction.

Similarly, using a median split of temporal distance, the effect of purchase type on mood was significant at longer distances, $\chi^2(1, N = 43) = 4.03$, $p < .05$, but not at shorter distances, $\chi^2(1, N = 45) < 1$, *ns*. Although these results are correlational and must be interpreted with caution, this pattern nonetheless suggests that the more time one has to think about an experiential (but not a material) purchase, the more positive one's memories become. This is also consistent with construal level theory (Trope & Liberman, 2003). At a greater temporal distance from a purchase, participants should be focusing on its more abstract features. It is probably these abstract features that carry many of the benefits of experiential purchases. Indeed, people in one study were more likely to choose an experience over a possession when thinking about the choice at a greater temporal distance (Van Boven & Gilovich, 2003, Study 4).

Together, the results of Studies 4A and 4B support the hypothesis. Participants engaged in more comparisons between different options for material purchases than experiential purchases, leading to more difficulty in making the purchase. What's more, thoughts that other options could be better continued to linger into the present, influencing current satisfaction in Study 4A, and current mood in Study 4B. Study 4B also showed that, compared with the experiential condition, participants in the material condition considered more alternatives before making a decision. Although the preferred explanation is that participants were engaging in more comparisons with their possessions because they were using a maximizing strategy, this finding has at least one alternative explanation. It could be that there are simply fewer experiential options to choose from, that the problem of consumer hyperchoice is rather limited to the material domain. Given the explosion of product variation on grocery store shelves, this seems somewhat unlikely, though future research may shed more light on this possibility. In either case, the end result is the same: material purchase decisions are more difficult.

One limitation to the studies reported so far is that they all rely on hypothetical situations and self-report. Study 5 was designed to allow observations of behavior in a lab setting in response to a real situation with real consequences.¹²

Study 5: Context Matters, Sometimes

Morewedge and colleagues (Morewedge, Gilbert, Kassam, Myrseth, & Wilson, 2009) demonstrated that although people predict that their satisfaction with potato chips would be influenced by the presence of better (e.g. chocolate) or worse (e.g. sardines) food items, the actual experience of eating the chips is just as enjoyable no

¹² Study 5 is a modified description of Study 4 in Carter and Gilovich (in press, *Journal of Personality and Social Psychology*, The Relative Relativity of Material and Experiential Purchases).

matter what the context (for a discussion of the “inherent evaluability” of consumption experiences, see Hsee, Yan, Li & Shen, in press). That is, when the comparisons to other experiential goods were made salient, people thought they would matter, but in practice, the comparisons either were not made, or did not have the predicted hedonic impact. Would this be true of material goods as well? This study was conducted to find out.

The Morewedge et al. (2009) study had already demonstrated that people predict that they will make (and be influenced by) salient comparisons. In this experiment, only the comparisons people might actually make are important, so only the “actual” half of the design of the Morewedge et al. (2009) study was replicated, adding a set of conditions in which participants received a material possession (a pen) instead of an experience (a bag of chips). Ostensibly as part of a product evaluation study, participants were given a prize (either a bag of chips to eat or a pen to keep) in the context of much better prizes, much worse prizes, or without any context (baseline condition). Thus, the design of the experiment was a 2 (Item type: Experience vs. Possession) X 3 (Context: Superior, Inferior, Control) factorial design. It was predicted that the comparison items would not influence participants’ ratings of the experiential good, but would influence their ratings of the material good.

Pilot testing. The target material and experiential prizes, a Pilot G2 Superfine pen and a 1oz bag of original flavor Frito-Lay Sun Chips, respectively, were selected based on informal pilot testing that suggested they were roughly equally desirable. To identify other items that were superior and inferior to the target prizes and would serve as the surrounding context, twenty-one Cornell students were asked to rate 20 different material and experiential products on a 7-point scale (1=very negative, 7=very positive). An additional 20 participants rated the same 20 items plus three additional items using the same procedure. Each of the products was present on a table in front of

them, and participants were encouraged to examine each one before making their ratings. On the basis of these ratings, 3 material items were selected that were rated significantly more positively than the Pilot Pen ($M = 3.66$, $SD = 1.54$): a Cornell University espresso mug ($M = 4.75$, $SD = 1.43$), a leather-bound Cornell University notebook ($M = 5.68$, $SD = 1.56$), and a 1GB USB flash drive ($M = 6.10$, $SD = 1.14$), all paired t 's > 3 , p 's $< .001$. Likewise, 3 material items that were rated significantly less positively than the Pilot Pen were selected: an unsharpened wooden pencil ($M = 1.76$, $SD = 0.92$), a small bag of rubber bands ($M = 2.02$, $SD = 1.19$), and an eraser ($M = 2.22$, $SD = 1.11$), all paired t 's < -6 , p 's $< .001$.

For experiences, 3 items were selected that were rated significantly more positively than the Sun Chips ($M = 3.02$, $SD = 1.37$): a Lindt Truffle chocolate bar ($M = 5.05$, $SD = 1.19$), a Dove chocolate bar ($M = 4.88$, $SD = 1.31$), and a Cadbury chocolate bar ($M = 4.90$, $SD = 1.52$), all t 's > 6 , all p 's $< .001$. Similarly, 3 items that were rated significantly less positively than the Sun Chips were selected: a single serving of Spam ($M = 1.95$, $SD = 1.07$), a can of sardines ($M = 1.71$, $SD = 1.01$), and a 8oz bottle of clam juice ($M = 1.46$, $SD = 0.98$), all t 's < 4 , all p 's $< .001$.

Although the pilot participants rated the Sun Chips significantly less positively than the Pilot Pen, $t(40) = 2.50$, $p < .05$, it is believed that the difference was a result of the influence of the other items. The context-free control condition of the experiment proper should allow us to test this possibility.

Method

Participants. One hundred twenty-two participants (49 male, 73 female) completed the experiment in exchange for course credit or a small cash payment. Four participants were excluded because the manipulation of context was not successful (they indicated either that the nearby items in the superior context were worse than the target item, or that the nearby items in the inferior context were better than the target

item). Two additional participants were excluded, one because he indicated that he disliked all chips, and another because the pen leaked on his hand. This left a total of 117 participants in the study.

Procedure. Participants in the superior and inferior context conditions were seated at a laboratory table with four prizes laid out on top, along with a sign stating “Prizes for Experiment.” In addition to the target material (pen) or experiential (Sun Chips) prize, participants in the inferior context condition could see the three prizes that had been rated as inferior to the target prize (e.g., clam juice, rubber bands), and participants in the superior context condition could see the three prizes that had been rated as superior to the target prize (e.g., Lindt truffle bar, leather folder).

Participants were told that they would be given one of the products, and that they would be asked to try it out and rate how much they liked it. The experimenter then casually consulted her clipboard (ostensibly to determine which of the four prizes the participant would receive) before announcing that the participant would be given the target material or experiential prize. Participants were then left alone for two minutes to eat the chips or try out the pen on some scrap paper while “verbalizing their thoughts and feelings.” After two minutes, participants were given a rating form, which asked them to rate how much they liked the product by placing a mark on a 150mm analog scale, anchored at ‘not at all’ and ‘very much.’ There was also a box on the form where they were asked to explain this rating. Aside from the absence of any other prizes, the procedure was identical for participants in the control condition.

After participants made their ratings, they were led from the lab room and asked what they thought the experiment was about and whether they found anything suspicious about the procedure. Participants in the superior and inferior context conditions were also asked if they had noticed the other prizes, whether they thought the other prizes were better than, worse than, or the same as the prize they were given,

and, finally, whether they thought the other prizes influenced their ratings at all.

Participants were then debriefed, thanked, and dismissed.

Results and discussion

Manipulation check. Looking at the responses of participants in the superior and inferior context conditions during debriefing confirms that the other prizes were, in fact, considered better or worse than the target prize. Although participants were allowed to indicate that the target prize did not differ from the context prizes, 83.33% of the participants in the superior context condition indicated that the other prizes were better than the target prize and 74.36% of the participants in the inferior context condition indicated that the other prizes were worse than the target prize, $\chi^2(N = 75) = 82.68, p < .001$.

Importantly, the favorability ratings of participants in the control condition confirmed that, devoid of context, the pen and Sun Chips were viewed similarly, $t < 1$, *ns*.

Ratings. It was predicted that the material item (the pen) would be rated less favorably in the context of the superior material items than in the context of the inferior material items. No such difference was predicted in the ratings of the experiential item (the Sun Chips), which was predicted to be rated the same as the items (material or experiential) in the two control conditions. Because four of the six conditions were not expected to differ from one another, the conventional 2x3 ANOVA does not offer the most appropriate test of the hypothesis. Instead, a linear contrast was constructed with contrast weights of -1 for the superior material context, +1 for the inferior material context, and 0 for all other groups. As predicted, this contrast was significant, $F(1,111) = 4.05, p < .05$. Importantly, the contrast for the residual was not significant, indicating that our planned contrast captures nearly all of the between condition variability, $F(4,111) = 2.30, p > .05$.

Post-hoc t-tests revealed that, as predicted, the Sun chips were rated equally in the superior ($M = 104.53$, $SD = 31.15$), control ($M = 107.28$, $SD = 30.54$) and inferior contexts ($M = 109.73$, $SD = 26.09$), both t 's < 1 . However, also as predicted, the pen was rated less favorably in superior context ($M = 78.53$, $SD = 35.82$) than it was in both the control, no-comparison context ($M = 103.64$, $SD = 23.28$), $t(111) = 2.64$, $p < .01$, and the inferior context ($M = 98.40$, $SD = 36.87$), $t(111) = 2.01$, $p < .05$. Counter to our predictions, the pen was not rated more favorably in the inferior material context than it was in the control, no-comparison context, $t(111) < 1$. A closer look at the manipulation check suggests why. Although the pilot subjects had rated the pen significantly more highly than the three inferior items, more than half of the actual participants in the experiment proper (52.63%) rated the inferior material items the same as the target item. (Note that this was not the case in the experiential condition, in which 100% of the participants rated the inferior comparison items less favorably than the target item). This suggests that the attempt to create an inferior comparative context in the material condition was not as successful as the effort to create a superior context. Alternatively, it is also possible, of course, that downward material comparisons do not enhance evaluations to the same degree that upward comparisons diminish them (Cooke et al., 2001; Walchi & Landman, 2003). Nevertheless, taken as a whole, the results of this study support the idea that people are more likely to engage in comparisons spontaneously for material than experiential goods, and that because of this, salient comparisons have a greater impact on people's satisfaction with their material goods than their experiential goods.

Together, these three studies support the claim that, compared to experiential purchase decisions, the more comparative nature of material purchase decisions leads the decisions to be more difficult, to more counterfactual thoughts in the present, and

ultimately, to lowered satisfaction and mood. What's more, the comparisons in the material case appear to be more spontaneous, and their impact was observed both in a controlled lab setting, and using actual material and experiential purchases participants had made.

Part 3: Hedonic impact of potentially invidious comparisons

Based on the findings reported above, it appears that, compared with experiences, material possessions are evaluated more comparatively, leading to different search strategies both before and after the choice, and ultimately, to diminished satisfaction. In Part 3, the aim is to investigate a different, but related reason why experiences tend to be more satisfying than possessions. It is proposed that even when one makes upward comparisons between the experience one purchased and an experience foregone, a potentially invidious counterfactual thought, these comparisons have less hedonic impact than analogous comparisons between actual and foregone possessions. Learning that the nice meal you enjoyed the night before is now cheaper than what you paid will be agitating, but not nearly as agitating as finding out that the price has just dropped on the cell phone you just purchased. That is, if experiences tend to be evaluated more on their own merits, negative comparative information will not be as heavily incorporated into the summary evaluation. Negative comparative information about possessions, as they tend to be evaluated in a largely comparative manner, will be more easily, and influentially, incorporated into the evaluation. As discussed above, reducing the ability to make comparisons reduces the experience of regret (van Dijk & Zeelenberg, 2005). In Study 4A reported above, participants in the material condition were more likely to engage in post-choice counterfactual thinking, which led to differences in satisfaction. In the studies below, the type and degree of negative counterfactual information is held constant, and its

emotional impact on material and experiential purchases is observed. It is predicted that the same potentially invidious comparisons will have a greater impact on possessions than experiences.

There are several additional reasons for this prediction. First, if people are engaging in different search and decision strategies for material purchase decisions than they are for experiential purchase decisions, they will be more susceptible to dissatisfaction as a result of a poor outcome, as well as recriminations due to a poor decision. That is, because comparisons are more directly tied to the process of making a material purchase decision than an experiential purchase decision, and because causes and process are more likely to form the content of counterfactual thought (Roese, 1997), the exact same comparative information might evoke more counterfactual thought for possessions than experiences. Second, in the literature on coping with negative events, the ability to explain and make sense of the events contributes to successful recovery and adaptation to new circumstances (e.g. Pennebaker, 1997; Wilson & Gilbert, 2008). Experiential purchase decisions gone awry might be easier to explain, rationalize, and make sense of than are material purchase decisions in a way that does not involve self-recrimination. Having a greater investment in the decision process, as would be the case when using a maximizing strategy for material purchases, might make it harder to make external causal attributions for a negative outcome. Placing the blame for a bad experiential purchase on external circumstances, and not on the self, might be much easier.

One potentially uninteresting reason why this might be the case is that experiential purchases, much more so than material purchases, tend to be irreversible. One can return or exchange a defective mp3 player or dinette set, but getting a refund for a rainy vacation or a sub-par meal is exceedingly unlikely. The ability to reverse decisions, though it might intuitively provide comfort, may actually be detrimental to

satisfaction. When participants in one study had the option of reversing a decision (which they tended not to do), they were ultimately less happy with their choice than those who were stuck with their initial choice (Gilbert & Ebert, 2002). The inability to reverse a decision allows one to engage rationalization processes immediately. However, even holding the reversibility of a decision constant, it is believed that possessions will be more susceptible to invidious comparisons.

The following three studies examine, the role of negative comparative information after a purchase is made. Participants are asked to imagine several different types of comparative information, including new, superior options becoming available (Study 6), the price dropping on a purchase (Study 7), and a rival's superior purchase (Study 8).¹³

Study 6: New Options Available

It sometimes happens that after a choice has been made, new options become available—options that are clearly superior to what one had chosen earlier and regarded as the best choice from the existing set of options. How disturbing does knowledge of these new options tend to be? Other research has shown that learning about new and better models of cell phones (typically thought of as a material possession) becoming available led to regret, though participants in the study did not get any positive benefit from learning that worse options are now available (Lin & Huang, 2006). Would this also be the case for experiences? That is, would it be more disturbing to learn about newer and better options after having made a material purchase than after having made an experiential purchase? In Study 6, participants were asked how they would react when, after making a material or experiential

¹³ Studies 6, 7 and 8 are modified descriptions of Studies 5A, 5B and 5C (respectively) in Carter and Gilovich (in press, *Journal of Personality and Social Psychology*, The Relative Relativity of Material and Experiential Purchases).

purchase, they learned that a better alternative to what they had chosen was now available. It was predicted that because material purchases tend to be evaluated more comparatively than experiential purchases, this potentially invidious comparison would be more troubling to participants when it came to material purchases.

Method

Participants and procedure. One hundred sixty-four participants (124 female, 39 male, 1 unspecified) completed the survey either while waiting for other experiments, or as filler questionnaires in unrelated experiments.

Materials. The questionnaire asked participants to imagine that they'd recently made a purchase from a large array of options, that they had chosen the best option from the array, and that they were happy with their purchase. Then, by chance, they discovered that in the time since they made the purchase, new options had become available – and that some of these options were clearly superior to those of the item they chose.

To make this scenario concrete and to cover an array of purchases and prices, participants were asked to imagine it in the context of one of four specific material purchases or one of four specific experiential purchases. The four material purchases were a wristwatch, a laptop computer, an mp3 player, and a pair of jeans. The four experiential purchases were a meal at an upscale restaurant, a movie ticket, a show in New York City, and an island vacation package.¹⁴

Participants read one scenario each, and then rated how disturbed they would be by the knowledge that better options were now available, and how much their

¹⁴ To confirm that these purchases represented their intended categories, 15 participants rated each of them for the degree to which they constituted material possessions or experiences (1 = definitely material, 7 = definitely experience, 4 = does not fit in either category). Each of the purchases was significantly different from the midpoint of the scale in the predicted direction, all t 's > 3.00, p 's < .01.

satisfaction with their purchase would be diminished by that knowledge. Finally, to assess whether participants attached the same average level of importance to the material and experiential purchases, participants rated how much they cared about the type of purchase they had been asked to imagine. Participants responded to all three questions on 7-point scales.

Results and discussion

Not surprisingly, participants reported caring more about some purchases than others, with a high mean rating of 5.52 (laptop computer) and a low mean rating of 4.18 (wristwatch) for the material purchases, and a high mean rating of 5.57 (vacation package) and a low mean rating of 4.05 (movie ticket) for the experiential purchases. Collapsing across the different types of material and experiential purchases, however, there was no difference in how much participants cared about the two different categories of purchases, $t < 1$. Thus, any difference in how troubled participants indicated they would be by finding out about the availability of other, superior material and experiential options cannot be attributed to any difference in the importance assigned to the particular material and experiential purchases they were asked to consider.

As predicted, participants who were asked about material purchases reported that knowledge of the availability of new options would be significantly more disturbing to them ($M = 3.98$, $SD = 1.59$) than did participants who were asked about experiential purchases ($M = 3.29$, $SD = 1.78$), $t(162) = 2.61$, $p < .01$, $d = .41$. Participants who were asked about material purchases also reported that learning about the availability of additional options would diminish their satisfaction with their purchase ($M = 3.82$, $SD = 1.28$) more than did participants who were asked about experiential purchases ($M = 3.39$, $SD = 1.46$), $t(162) = 2.01$, $p < .05$, $d = .32$. On both measures, an ANCOVA indicated that the difference between the material and

experiential conditions remained significant when the extent to which participants cared about the purchase was controlled: $F(1,161) = 7.79, p < .01$, for how disturbed participants would be, and $F(1,161) = 4.35, p < .05$, for how much it would diminish their satisfaction.

The results quite clearly show that knowing that one could have had a better product is more disturbing when it is a material product rather than an experiential product. This supports our contention that comparisons loom larger in evaluations of material possessions than in evaluations of experiences. What about other types of comparisons? Do people also find it more upsetting to learn that others received the same material possession for a better price than to learn that others received the same experience for a better price? Study 7 was designed to find out.

Study 7: Cheaper Later

Another source of potential regret in making a purchase is in the timing, learning that one would have gotten a better deal if one had waited, or not waited so long, to make a purchase (Cooke et al., 2001). In Study 7, using the same basic paradigm as Study 6, participants were asked how they would react upon learning that the material or experiential choice they made was now available at a better price. Again, it is predicted that participants would find a lower price more troubling for a variety of material possessions than a variety of experiences.

Method

Participants and procedure. Sixty-two participants (47 Female, 15 Male) completed the survey either while waiting to complete other experiments, or as filler questionnaires in unrelated experimental sessions.

Materials. The scenarios and purchases used in this study were identical to those in Study 6, except that rather than stating that new options had become

available, participants were asked to imagine that they had discovered that since the time they had made their purchase, its price had been lowered. It was predicted that, because of the more comparative nature of the satisfaction derived from material goods, participants would report being more disturbed by the knowledge that their material purchase was now available at a lower price.

Results

As in Study 6, participants reported caring more about some purchases than others, with a high mean rating of 6.00 (laptop computer) and a low mean rating of 3.86 (wristwatch) for the material purchases, and a high mean rating of 6.00 (vacation package) and a low mean rating of 4.43 (show in NYC) for the experiential purchases. Collapsing across the different material and experiential purchases again yielded no difference in how much participants reported caring about the two different categories of purchases, $t < 1$. Thus, as in Study 6, any difference in how troubled participants indicated they would be by finding out about a lower price cannot be attributed to any difference in the importance assigned to the particular material and experiential purchases they were asked to consider.

As predicted, learning that the price had been lowered after a purchase was significantly more disturbing to participants who were asked about material purchases ($M = 4.97$, $SD = 1.08$) than to participants asked about experiential purchases ($M = 3.42$, $SD = 1.50$), $t(60) = 4.67$, $p < .001$, $d = 1.20$. Participants who were asked about material purchases also reported that learning about the lower price would diminish their satisfaction with their purchase ($M = 3.29$, $SD = 1.42$) more than did participants who were asked about experiential purchases ($M = 2.39$, $SD = 1.36$), $t(60) = 2.56$, $p < .05$, $d = .66$. On both measures, an ANCOVA showed that the difference between participants' ratings in the material and experiential conditions remained significant when the extent to which participants cared about the purchase was controlled: $F(1,59)$

= 24.18, $p < .001$, for how disturbed participants would be, and $F(1,59) = 6.33$, $p < .05$, for how much it would diminish their satisfaction.

Discussion

Studies 6 and 7 demonstrate that having participants imagine acquiring new information that evokes potentially troublesome counterfactuals has different effects when it comes to material and experiential purchases. The mere knowledge that in some other state of the world, a better outcome could have been obtained was significantly more disturbing when the purchase was a material good than when it was a life experience. What's more, participants reported that these counterfactuals would diminish their satisfaction with their purchase more in the material than in the experiential case. It is important to note that the superior outcomes (either superior in function or superior in price) that the participants were led to imagine were unattainable at the time of the decision. Although participants were not told explicitly that they could not reverse the state of affairs (by returning the now-diminished purchase), the questions asked participants to indicate how they would feel as a result of merely knowing that better options (or lower prices) were now available. Note, furthermore, that although the ability to make an exchange would presumably diminish the negative impact of learning about a better option or a lower price, an exchange is only plausible in the material case. In the study by Gilbert and Ebert (2002) described above, even though reversibility was detrimental to satisfaction, participants did not believe this to be the case, preferring the ability to reverse a decision. Any thoughts participants may have had about returning their purchase thus cannot explain the observed pattern of results.

Study 8: A Rival's Better Deal

The results of Studies 6 and 7 indicate that people are more affected by invidious comparisons to better options, or better deals, when it comes to material rather than experiential purchases. Often, however, the comparisons people make are not between one option and another, but between a chosen option and someone else's. Does my cell phone get better service than yours? Does your car get better gas mileage than mine? These types of social comparisons are nearly unavoidable (Gilbert et al., 1995; Mussweiler, Rüter & Epstude, 2004; Suls & Wheeler, 2000; van Dijk & Zeelenberg, 2005). This study was designed to examine whether the more comparative nature of material goods leads to more damaging social comparisons.

Specifically, participants were asked to imagine that a material and an experiential purchase did not measure up to the purchase made by a rival—a particularly potent target of social comparison. It was predicted that learning that a rival's purchase was superior would diminish participants' satisfaction with their own purchase more when the purchase was a material good than when it was an experience.

Because the boundary between material and experiential goods can be fuzzy (a point to which I will return in Chapter 4), the different conditions have so far been instantiated in several different ways. In Studies 2, 4A and 4B, participants were asked to think of an example that typified the category for them, allowing them to draw the categorical distinction themselves. In Studies 1, 3, 5, 6 and 7, specific representative examples of material and experiential purchases were used to ensure that participants were using the categories as intended. This study used a hybrid approach. Participants were given a concrete example of either a material or experiential purchase, and had them recall a complementary purchase that they considered equivalent to the concrete example provided. This has the benefit of constraining the category with a specific

example, and allowing the participants to equate the two purchases themselves. Thus, one can be reasonably sure that the purchases are, at least in the minds of the participants, equivalent.

Method

Participants and procedure. Sixty-six participants completed the survey while waiting for other experiments to begin.

Materials. The scenario asked participants to imagine that a rival had made the same material and experiential purchases that they had, but that their rival's turned out better in each case. There were two versions of the survey. Participants were given either a specific material purchase (a laptop computer) or a specific experiential purchase (a vacation package) and told that their rival had also purchased one from the same vendor at the same price, but that in talking with the rival afterwards, it was clear that the rival's outcome was better. Participants were then asked to generate an equivalent item from the category other than the one they had been given—i.e., to think of an experiential purchase equivalent to a laptop or a material purchase equivalent to a vacation. They were then asked to imagine the same scenario (with the rival's purchase turning out better) with respect to this other purchase. Thus, all participants had in mind a material and an experiential purchase that were, to them, equivalent.

For each purchase, participants indicated on 7-point scales how jealous they would be of their rival's superior purchase, and how much their satisfaction with their own purchase would be diminished by learning about their rival's purchase (1 = not at all jealous/diminished, 7 = extremely jealous/diminished). It was predicted that participants would report being more jealous of the rival's superior material purchase, and that this knowledge would diminish their satisfaction with their own material purchase more than their own experiential purchase.

Results and discussion

There were no differences between the two versions of the survey on any of the measures, indicating that regardless of whether participants were given a specific material purchase and generated an equivalent experience or vice versa, they responded the same (all p 's $> .25$). As such, the two versions were collapsed in all subsequent analyses. Participants reported being more jealous of a rival's superior material purchase ($M = 4.74$, $SD = 1.26$) than a rival's superior experiential purchase ($M = 4.35$, $SD = 1.65$), paired $t(65) = 2.11$, $p < .05$, $d = .32$, indicating that social comparisons loomed larger for the rival's material purchase. This difference in social comparison, furthermore, translated into a more diminished sense of satisfaction with participants' own material purchase ($M = 4.14$, $SD = 1.52$) than with their own experiential purchase ($M = 3.70$, $SD = 1.59$), paired $t(65) = 2.32$, $p < .05$, $d = .29$.

Across Studies 6-8, potentially invidious comparisons appeared to have a greater hedonic impact on material possessions than experiences. This was true using comparisons to other purchase options, the same purchase option at a lower price, and the purchases of others. Thus, not only are people more likely to engage in comparisons when choosing and evaluating material possessions rather than experiences, but those comparisons are more consequential. It remains to be seen whether positive comparative information would lead to greater satisfaction for material possessions than experiences, but there is evidence to suggest that this would not be the case. In Study 5, above, participants did not appear to reap the benefits of downward comparisons to worse material prizes, although this may be due to a weakness of the manipulation. Better evidence is offered by Lin and Huang (2006). Participants in their study were provided positive and negative comparative information about a hypothetical cell phone purchase. Consistent with the results of

Study 6, the negative information increased regret. Positive comparative information, however, did not diminish regret.

Conclusions

In the studies reported in Chapter 2, it is evident that people do tend to evaluate material possessions somewhat more comparatively than they evaluate their experiences. This leads to differences in decision-making strategies, with participants opting to maximize material purchase decisions and satisfice experiential purchase decisions (Studies 1 and 2). The tendency to compare also led participants to engage in more comparisons to other material options after a choice was made (Study 3). This has consequences for actual purchase decisions as well. Compared to experiential purchase decisions, material purchase decisions were more difficult to make, and thoughts of unchosen options still lingered into the present, leading to diminished satisfaction (Study 4A) and a less positive mood (Study 4B). The tendency to engage in comparisons with other material possessions appears to be spontaneous, and to have immediate negative consequences, when the comparative information is negative (Study 5). What's more, the same negative comparative information seems to have a greater hedonic impact on possessions than experiences (Studies 6-8). All told, this tendency to evaluate material possessions in a comparative fashion appears to have a variety of negative consequences, and helps to explain why possessions are ultimately less satisfying.

Chapter 3: The centrality of experiential purchases to the self-concept

In the little research to date that has examined the differences between material and experiential purchases (Carter & Gilovich, in press; Van Boven, 2005; Van Boven & Gilovich, 2003), one of the reasons typically cited for greater happiness and satisfaction with experiences is the idea that experiences, because they exist primarily as memories, form a greater part of the self-concept than do material possessions. The present research aims, first, to examine whether experiences are indeed more closely integrated into the self-concept, and second, to test whether this also helps to explain greater satisfaction with experiential than material purchases.

Identity signaling

The desire to develop and convey a certain impression of oneself to others is a fundamental part of social interaction (Goffman, 1959). Thus, it is no surprise that people choose to make particular purchases in order to signal particular facts about their identity, be it wealth and social status (e.g. Schor, 1998; Veblen, 1899), or even to differentiate themselves from those within their social group (Tian, Bearden & Hunter, 2001). While some research on identity signaling focuses on trends in identity signaling behavior (e.g. Berger & Heath, 2007, 2008), many have simply railed against the negative consequences of using purchases as identity signals, such as the impact of overconsumption on the environment and other social structures (e.g. de Graaf, Wann & Naylor, 2001; Frank, 1999; Kasser, Cohn, Kanner & Ryan, 2007; Schor, 1998).

The presumption, in most cases, is that the use of purchases to signal identity or social status is ultimately detrimental to well-being (e.g. Kasser & Kanner, 2004). This presumption is largely a product of several factors. First, in order to be an effective communication of identity, the purchase must be conspicuous to others

(Veblen, 1899; cf. Berger & Ward, 2008). Second, the identity people are often trying to communicate is their socioeconomic status, which, as a result of exposure to advertisements targeting a broad range of incomes, is often a more elite economic group than the group to which one actually belongs (Schor, 1998). Third, because the wealth signaling value of many purchases is not a function of the performance of the purchase, but its cost relative to the target social or economic group, it can spurn arms races as everyone tries to “keep up with the Jones’s” (Frank, 1999; see also Richins, 1991). Finally, the use of conspicuous purchases often detracts from social relationships, activities, and other less conspicuous forms of consumption that are known to contribute to well-being (Burroughs & Rindfleisch, 2002; Frank, 1999; Kasser et al., 2007; Sirgy, 1998).

However, this analysis may apply more directly to material possessions than to experiences, for the simple reason that experiences, by their very nature, are less conspicuous than possessions. Conspicuously bronzed skin, evidence of a recent trip to Bali, will fade within a few weeks, but the shiny BMW in the parking lot will signal one’s ability to afford a luxury automobile for at least a few years. It is for this reason that experiences tend to be poor choices for those hoping to convey wealth and status. Although the ability to engage in leisure activities (rather than needing to spend one’s time laboring) might be a powerful indicator of wealth (Veblen, 1899), possessions are, on average, a far more visible signal.

Also, as demonstrated above, because experiences tend to be evaluated on their own merits, they do a poor job of signaling a relative level of wealth. Indeed, in Study 8 reported above, people were less concerned with negative social comparisons for their experiential purchases than their material purchases. If other people are unlikely to think worse of their obviously inferior vacation, what good is a superior vacation as a signal of status? Furthermore, even experiential purchases made with the intention of

being conspicuous are likely to involve other people. This social component, which is known to contribute to well-being (Myers, 2000), may help offset the negative consequences of otherwise extrinsic goals (Kasser & Ryan, 1993, 1996).

Of course, while this analysis suggests that experiences are poor choices for those who seek to establish and communicate their identity through purchases, there is considerable evidence that it is the very extrinsic nature of this goal (i.e. that it requires some external recognition), that is responsible for the decrease in well-being (Kasser & Ryan, 1996; Sheldon, Ryan, Deci & Kasser, 2004). That is, it is not entirely clear that experiences purchased to signal wealth and status would yield different results than possessions purchased for the same reason. True, people who tend to define themselves by their possessions tend to be less happy overall (Belk, 1985; Kasser & Ryan, 1993; Richins & Dawson, 1992), but that may be more indicative of something about the people and their motives, and less about the purchases, which may be serving their intended purpose quite well.

Importantly, beyond merely serving as identity signals, it is believed that experiences have a more complex relationship with the identity or self-concept than do possessions. A recent study found that people's vacation plans were quite often motivated by the desire to create memories and kindle (or rekindle) aspects of themselves that they considered important (Kwortnik & Ross, 2007). While possessions might serve as an external reminder of the identity (Belk, 1988), experiences might have a greater hand in forming and solidifying the identity, perhaps even unintentionally. As such, it is believed that even if a purchase is made in large part to satisfy an identity-signaling motive, the process of consuming an experiential purchase will actually do more to contribute to identity-formation than will a material purchase. The processes involved are described in more detail in the next section. Thus, even for people who are relatively materialistic and who claim to define

themselves in terms of their possessions, it is predicted that their experiential purchases will make a substantial contribution to their self-concept.

Intra-individual processes

While it is interesting to note that, compared with possessions, experiences may be a poor signal of one's identity to others, the intention of present chapter is to test whether experiences have a superior ability to signal identity to oneself, and whether this difference leads to greater happiness with experiences than possessions. Although it may be more difficult to signal one's identity to others with an experience, the fact that experiences exist primarily in memory means that they become more truly part of who we are, as it is our collection of memories and experiences that define us. Possessions, because they primarily exist physically outside ourselves, may be less quickly and easily incorporated into the self. As part of the self, memories of purchased experiences can be embellished using the same sorts of intra-individual processes that allow people to maintain positive self-views (e.g. Dunning, 2005), particularly over time. Indeed, people do tend to take the "rosy view" of experiences over time, even though the actual experience might be fraught with disappointing moments (Mitchell et al., 1997). Evaluating the quality of one's experiences is, in essence, evaluating aspects of oneself.

Unlike material possessions, which are typically made to fill a specific, concrete purpose,¹⁵ experiences are often purchased for a variety of different reasons, intended to serve both higher and lower order goals. Because one can evaluate an experience on many different dimensions, it can be easier to find positive dimensions of evaluation. Just as people tend to use self-serving definitions when evaluating their

¹⁵ Although purchasing a material possession for the purpose of identity signaling might also be considered a higher-order goal, the extrinsic nature of the goal might undermine any benefits it might confer.

traits and abilities (Dunning, Meyerowitz & Holzberg, 1989), people can use self-serving criteria and different levels of abstraction when evaluating another part of themselves, their memory of an experience. For example, a wristwatch is primarily evaluated on its time-keeping ability and its aesthetics. A car is evaluated primarily on its ability to perform on the road, its comfort, and its contours. On the other hand, a night out at a restaurant can be evaluated either on its concrete dimensions (the taste and texture of the food, the cost of the cab ride), or more abstractly, in terms of the goals it served (bonding with friends, trying something new). The protean nature of experiences might make it easier to find the bright side by focusing on whichever elements were the most successful. If the food is sub-standard, one can evaluate the experience as to how it achieved higher-order goals, which have considerable leeway in their interpretation and evaluation, particularly at greater temporal distance (Trope & Liberman, 2003). This room for interpretation of information is essential to the process of motivated reasoning (Kunda, 1990), which is largely a product of the desire to protect the self (e.g. Dunning, Leuenberger & Sherman, 1995). In addition, any purchase that can be seen as accomplishing a higher-order goal can take on special importance, and tie in even closer to the self-concept. People strive to protect memories of purchases they consider special (Zauberman et al., 2009), suggesting that people will cling more tightly to their memories of experiential than material purchases.

Incorporating experiences more closely into the self-concept might have implications for the experience of regret and dissatisfaction. As describe above, people tend to be dissatisfied with purchases that do not meet expectations, and to regret purchases that are outperformed by unchosen options (Bell, 1982, 1985; Loomes & Sugden, 1982; Tsiros & Mittal, 2000; Zeelenberg & Pieters, 1999; Zeelenberg et al., 1998). In addition to selectively focusing on the different goals an experiential

purchase was intended to serve, people might also reframe their expectations after the fact so that a purchase more closely aligned with the self is seen as more satisfying. This post-hoc rationalization may be a motivational phenomenon, something akin to cognitive dissonance reduction (Festinger, 1957), in that people are motivated to change their prior beliefs to bring them into line with their current status. Research demonstrating that people's expectations are often more positive than their actual experiences does not seem to dampen people's memories (Mitchell et al., 1997) or their intention to repeat the experience (Wirtz, Kruger, Scollon & Diener, 2003) supports this idea. Similarly, people may be reluctant to make unfavorable comparisons to unchosen options (i.e. feel regret) if the purchase they made is now a part of the self, for much the same reasons that people tend to reduce the amount of regret they feel for actions they take over time (Gilovich & Medvec, 1994, 1995; Gilovich, Medvec & Kahneman, 1998). This would not likely be as true for possessions, which are not as closely aligned with the self.

In sum, there are a variety of reasons to expect that experiences contribute more to the self-concept, and that this might have implications for satisfaction with experiential purchases. In the following two sections, I aim to examine this hypothesis empirically. In Part 1 of this chapter, I test whether experiences are more closely incorporated into the self-concept than possessions. In Part 2, I test whether this tendency to cling to experiential memories helps explain why experiences are ultimately more satisfying than possessions.

Part 1: I am what I do, not what I have

Because experiential purchases become part of the set of memories that define the self, it is believed that experiential purchases will be more closely associated with the self-concept than material purchases. Study 9 is designed to test whether, in some

literal sense, this is true. In Study 10, I examine whether, when it comes to telling the story of one's life, people are more likely to talk about their experiential purchases than their material purchases. What's more, it is believed that, while the tendency might be somewhat weaker for those who are relatively materialistic, it will still be evident.

Study 9: Diagramming the self

How closely do people associate their material and experiential purchases with their self-concept? The present experiment was designed to find out. The procedure borrows a page from work on the different conceptions of the self in independent and interdependent cultures. To illustrate the idea that in interdependent cultures, compared with those in independent cultures, people tend to define themselves more in terms of their social and familial relationships, Markus and Kitayama (1991) depicted the self and relationships using a Venn diagram (see Figure 1, Markus & Kitayama, 1991). The diagram places the self as a large circle at the center, and family and friends are represented as peripheral circles. Someone from an interdependent culture's friend and family circles should show more overlap onto their self-circle than someone from an independent culture. A similar logic should apply with purchases that make varying contributions to the self-concept. In this experiment, participants were asked to describe several material and experiential purchases, and then place them on a Venn diagram according to how closely they felt the purchases mapped onto their self-concept. It is predicted that people will place their experiential purchases closer to their self-concept than their material purchases.

Methods and materials

Participants and procedure. Fifty-three participants (31 Female, 21 Male, 1 unspecified) completed the survey either in exchange for a candy bar or as a filler

survey during an unrelated experiment. Although one participant did not complete the materialism measure, her data are only excluded from analyses using that measure. Including or excluding her does not alter the direction or significance of any of the reported findings.

Participants were first asked to recall eight significant purchases they had made in the past five years, four material possessions and four experiences, and to list each purchase and its price. Next, they were asked to represent each purchase as a circle, and draw its closeness to a central “self” circle to represent how close that purchase seemed to their “sense of self.” As an example, participants saw a representation of how one might diagram one’s familial relationships, with some closer and some further away from the central self-circle (the example is depicted in Figure 6).

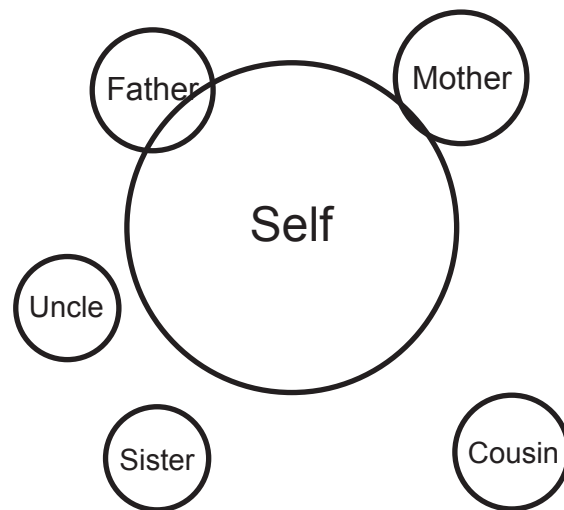


Figure 6: Venn diagram example.

Finally, participants completed the revised 15-item version of the Material Values Scale (MVS; Richins, 2004), a common measure of the materialistic value orientation.

Results and discussion

The closeness of each purchase to the self-concept was calculated by measuring the distance between the center of the self-circle and the center of each purchase circle in millimeters, and then averaging these into separate indexes of material and experiential closeness. Because the circles had to be large enough to accommodate the name of the purchase, which varied considerably in length, the circles also varied considerably in size and shape. Using the center of the circle rather than the closest edge should prevent any artifacts due to oddly shaped and sized circles.

As predicted, participants' experiential purchases were closer to their self-concept than their material purchases ($M_{experience} = 29.99$, $SD_{experience} = 8.54$; $M_{material} = 34.00$, $SD_{material} = 12.73$), paired $t(52) = 2.48$, $p < .02$, $d = .341$.

Although there was only a marginally significant difference in the price of material and experiential purchases, $t(52) = 1.93$, $p = .06$, to rule out price as a possible explanation, a separate regression was performed for each participant predicting the distance of each purchase from the self using the type of purchase (material or experiential) and the price of that purchase. On average, the coefficient of purchase type was significantly different from zero in the predicted direction ($M_{beta} = .26$, $SD = .81$), $t(52) = 2.33$, $p < .03$, whereas the coefficient of price was not different from zero ($M_{beta} = -.08$, $SD = .40$), $t(52) = -1.49$, $p = .14$.

Neither the material nor the experiential closeness measures correlated with the MVS on its own (both p 's $> .10$), though combining the two measures into an index of the tendency to place material purchases further from the self than experiences did significantly correlate with the MVS, $r(50) = -.32$, $p = .02$. This correlation, while not surprising, does help validate both instruments; people who consider experiences closer to their self-concept than material possessions also report that possessions are

less central to their lives and happiness. It is important to note, however, that despite the correlation, the trend was not reversed for those relatively high in materialism. Indeed, over 70% of participants put their experiences closer to the self than their possessions. Importantly, looking just at the participants whose average score was above the midpoint of the MVS ($n = 21$), the trend did not reverse. Even for these participants, who report putting possessions front and center in their lives, their possessions and experiences were an equal distance from the self, $t < 1$, $p > .90$.

This study provides evidence that people consider their experiential purchases to be closer to their self-concept than their material purchases. The result was not qualified by the cost of the purchases, and although the tendency was negatively correlated with materialism, even the most staunch materialists did not place their possessions closer to their self-concept than their experiences. Thus, even if materialists are making material purchases with the intention of signaling aspects of their identity to others, their experiences do just as well in forming that identity.

Study 10: Telling a life story

One limitation of Study 9 is the fact that participants were asked to engage in a fairly novel task, literally mapping their purchases onto their self-concept. The present experiment was designed to achieve a similar end using a procedure with which participants are presumably much more familiar: talking about themselves. Specifically, participants were asked to describe several material and experiential purchases, and then asked to tell their life story, incorporating, if they so desired, some of the purchases they had previously described.

Methods

Participants and procedure. Ninety-one participants (72 Female, 18 Male, 1 unspecified) completed the survey as part of a series of unrelated surveys conducted

online. Participants were first asked to recall ten significant purchases they had made over the course of their lives, five material possessions and five experiences. There were ten entry fields, clearly marking which purchases should be material and which should be experiential, which helps avoid any ambiguity in the data coding. They were asked to provide a brief description and the cost for each purchase.

One participant described only five material purchases and no experiences, and was excluded from the analysis. Although other participants did sometimes omit one or two purchases, all remaining participants described at least three purchases in each category.

For the main dependent measure, participants were asked to provide a narrative description of themselves. Specifically, participants saw the following instruction:

In the box below, write out a summary of your “life story.” Who are you? How did you get to be the way you are? What are you and your life about? We’d like you to incorporate some of the purchases that you listed above in your life narrative, but not all of them (of course). Choose whichever ones you feel it best to include, but be sure to include at least one.

Next, participants completed the Material Values Scale (MVS; Richins & Dawson, 1992), a common measure of materialism. One participant did not complete the MVS, but was only excluded from analyses using that measure. Including or excluding her data does not change any of the reported findings.

Results

Two independent raters read each participant’s life narrative, and for each purchase described, coded whether it was included as part of the narrative (coded as 1)

or not (coded as 0). Both raters were blind as to which purchases were intended to be material or experiential, but only one of the raters was blind to hypotheses. Because their ratings corresponded very highly, agreeing on 95% of the cases, awareness of the hypotheses does not appear to have tainted the non-blind coder's ratings. As a precaution, a third coder, who was also blind to hypotheses, resolved all of the cases where the two main coders disagreed. For each participant, we calculated the proportion (ranging from 0 to 1) of material and experiential purchases that were included in the life narrative by averaging across the codes for that purchase type. As predicted, participants included more of their experiential purchases ($M = .42$, $SD = .28$) than their material purchases ($M = .22$, $SD = .24$) into their life narrative, paired $t(89) = 5.94$, $p < .001$, $d = .626$.

Although there was a marginally significant difference in how expensive the material and experiential purchases tended to be (median costs for experiential and material purchases were \$1,450 and \$464, respectively),¹⁶ paired $t(83) = 1.83$, $p = .07$, to rule out the impact of price as a possibility, a separate regression was performed for each participant, predicting each purchase's inclusion in the life narrative using the type of purchase (material or experiential) and the price of the purchase. The coefficient for price was significantly different from zero on average, ($M_{beta} = .11$, $SD = .28$), $t(81) = 3.68$, $p < .001$, indicating that participants were more likely to mention expensive purchases in their life narrative. This did not, however, explain the greater inclusion of experiences in the life narratives. On average, the coefficient of purchase type was significantly different from zero in the predicted direction ($M_{beta} = .22$, $SD =$

¹⁶ Some purchases were not accompanied with a quantifiable cost (e.g. 'a lot'), which accounts for the lowered degrees of freedom. These purchases were also excluded from the within-subjects regression analysis, though no participant's data had to be discarded as a result of these omissions.

.57), $t(81) = 3.28, p = .001$. That is, controlling for each purchase's cost, participants were still more likely to mention experiential purchases in their life narrative.

Neither the material nor the experiential measures of inclusion in the life narrative correlated with the MVS as a whole (both p 's $> .2$). However, the life-centrality subscale of the MVS did negatively correlate with the likelihood of including experiential purchases to a marginally significant degree ($r = -.19, p < .07$), but was not significantly correlated with the inclusion of material purchases ($r = .09, p > .35$). Although those who consider materialistic possessions to be more central to their lives were less likely to include experiential purchases in their life-narratives, as in the previous study, this did not reverse the trend. Looking just at those who scored above the midpoint on the life-centrality subscale ($n = 39$), even these participants were still more likely to include experiences ($M = .35, SD = .29$) than possessions ($M = .26, SD = .28$) in their life narratives, though not quite significantly so, paired $t(37) = 1.39, p = .17, d = .227$.

Discussion

The results of this study confirm the results of the previous study. In a more naturalistic manner, participants were more likely to use their experiential purchases than their material purchases to tell their life story. As in the previous study, this difference holds regardless of the cost of the purchases, and even materialists showed some evidence of the same tendency, though to a lesser degree.

One weakness of the paradigms used in Studies 9 and 10 is that participants were required to list out several material and experiential purchases, and aside from their cost, there is no obvious way to determine the extent to which the purchases described are representative of the purchases that participants, or even the general population, tend to make. It is possible that people tended to choose experiences that were already more closely associated with the self-concept, perhaps to avoid

appearing materialistic (Fournier & Richins, 1991; Van Boven, Campbell & Gilovich, 2009). It is also possible that the experiences people chose were bigger purchases, and thus more important to them than the possessions they chose. There are trends in the data that speak against these possibilities. First, although there was a significant correlation between the tendency to place experiences closer to the self than possessions and materialism in Study 9, the correlation was not particularly high, nor did those who scored objectively high show a reversal of the trend. The correlation was even weaker in Study 10. Thus, for people who were willing to admit to a significant degree of materialism, the predicted pattern was weaker, but never reversed, as might be expected given the definition of materialism. Second, in both Studies 9 and 10, controlling for the cost of the purchase (which typically correlates fairly highly with the reported importance of the purchase in the other studies reported above) did not diminish the tendency to plot experiences closer to the self or incorporate more experiences into a life story. If people were choosing material and experiential purchases of different importance, it is likely that controlling for cost would significantly diminish the observed effects. Additionally, the instructions in both studies indicated that participants should choose very significant purchases, hopefully ensuring that none of the purchases were psychologically trivial.

There is still the possibility that the purchases participants selected are not representative of the types of purchases the participants usually make, however. Although it would be compelling evidence to find that experiential purchases are spontaneously incorporated into life stories even without any prompt to include purchases, the paradigm used in Study 10 offers several methodological benefits. Having participants generate and define for themselves material and experiential purchases, rather than imposing a definition on them, more closely resembles how people might think about and use the categories in the real world. Additionally, for the

purpose of coding the narratives, having clearly defined purchases removes one additional layer of interpretation and ambiguity from the coding scheme. Finally, having participants list both material and experiential purchases ensured that they would have both kinds of purchases accessible. Even with both material and experiential purchases accessible and salient, people still considered experiences to be more central to the self-concept.

Part 2: Clinging to cherished memories

The aim of the next study is to show that the greater incorporation of experiences than possessions into the self-concept helps to explain the general finding that experiences tend to be more satisfying than possessions. One consequence of experiences being a greater part of the self-concept is that people should be less willing to give up those memories, as it would mean deleting a part of the self (Gilovich, 1991). Indeed, there is evidence that people take steps to protect memories they consider special (Zauberman et al., 2009). It is believed that the satisfaction that people gain with an experiential purchase over time is directly related to the incorporation of the memories into the self-concept, and thus the belief that any alteration of the memories would involve changing a part of the self. The following study was conducted to find out.

Study 11: Memory exchange

Once a purchase has been consumed, traded, or is otherwise no longer physically present in our lives, it is ultimately the memories of that purchase that we consult in order to determine our present satisfaction. If, as shown in the two previous studies, experiences tend to be more closely integrated into the self-concept than possessions, then people should be more protective of memories of experiential

purchases, just as they are of other parts of the self. In the present study, participants were asked to imagine that they had been given the chance to exchange their memories of a material or experiential purchase. Which one would feel like a bigger change to the self? It is predicted that participants will feel that exchanging memories of an experiential purchase would result in a bigger change to their self-concept than exchanging memories of a material purchase, and that this tendency will help explain any differences in satisfaction.

Method

Participants and procedure. Sixty participants (35 Female, 25 Male) completed the survey as a filler during unrelated experiments.

Participants were first asked to recall and briefly describe either a material or experiential purchase,¹⁷ indicate its cost and how long ago they made the purchase, and then report how important it was to them, and their satisfaction with the purchase, both on 9-point Likert scales (1=not at all important/satisfied, 5=somewhat important/satisfied, 9=very important/satisfied).

Next, participants were given the following instruction: “Now, imagine that you could go back in time for just an instant, and make a different decision, choosing one of the alternatives instead, and then come back to the present. All of your current memories of that purchase would be replaced with new memories that were formed as a result of the different choice, but ultimately you have arrived back at the same place and time, right where you are now.” The instructions were designed to ensure that participants were only considering the alteration of their memories, and not a change in their current life circumstance. They were then asked whether they would be willing to make such an exchange (1=absolutely not, 9=definitely), how much happier they

¹⁷ To keep the physical presence of the purchase consistent between conditions, participants in the material condition were asked to recall a material purchase that they no longer possessed.

would be if they made such an exchange (1=much less happy, 5=about the same, 9=much more happy), how important their current memories were to them (1=not at all important, 5=somewhat important, 9=very important), and to what degree such an exchange would alter who they were (1=not at all, 5=somewhat, 9=a great deal).

Results

There were no differences between conditions in how important the purchases were ($p > .23$), or how long ago the purchases were made ($p > .30$), but experiential purchases were reported to be more expensive than material purchases, $t(58) = 2.00$, $p < .05$. This is controlled for statistically below.

As predicted, participants in the experiential condition reported that their purchases ($M = 8.13$, $SD = 1.20$) were significantly more satisfying than those of participants in the material condition ($M = 7.50$, $SD = 1.01$), $t(58) = 2.22$, $p < .04$, $d = .54$. This result remained marginally significant when controlling for how long ago the purchase was made and the cost of the purchase, $\beta = .471$, $t(56) = 1.80$, $p < .08$.

Responses to the memory questions were averaged to create an index of the willingness to exchange memories of the purchase such that higher numbers indicated a greater willingness to make such an exchange ($\alpha = .72$). As predicted, participants who reported a material purchase ($M = 5.57$, $SD = 1.55$) were more willing to exchange their memories than participants who reported an experiential purchase ($M = 4.38$, $SD = 1.64$), $t(58) = 2.88$, $p < .01$, $d = .74$. This result remained significant when controlling for how long ago the purchase was made and the cost of the purchase, $\beta = .629$, $t(56) = 2.44$, $p < .02$.

Is the greater satisfaction with experiential purchases the result of the feeling that the memories are part of the self? A mediation analysis (Baron & Kenny, 1986) was conducted to see if the reported difference in satisfaction between conditions was significantly mediated by the willingness to exchange one's memories (see Figure 7).

Having already established that both satisfaction with the purchase and the willingness to exchange one's memories was influenced by the type of purchase recalled, it must next be established that the effect of the purchase type on satisfaction is a consequence of the memory exchange measure. In a linear regression predicting satisfaction, the memory exchange index was indeed a significant predictor, $\beta = -.352$, $t(57) = -2.76$, $p < .01$, while purchase condition dropped to non-significance, $\beta = .307$, $t(57) = -1.21$, $p = .23$. This is confirmed by a Sobel test, $Z = 1.99$, $p < .05$. Thus, at least part of the reason that experiential purchases are ultimately more satisfying appears to be due to the fact that memories of the purchase become more closely tied to the self.

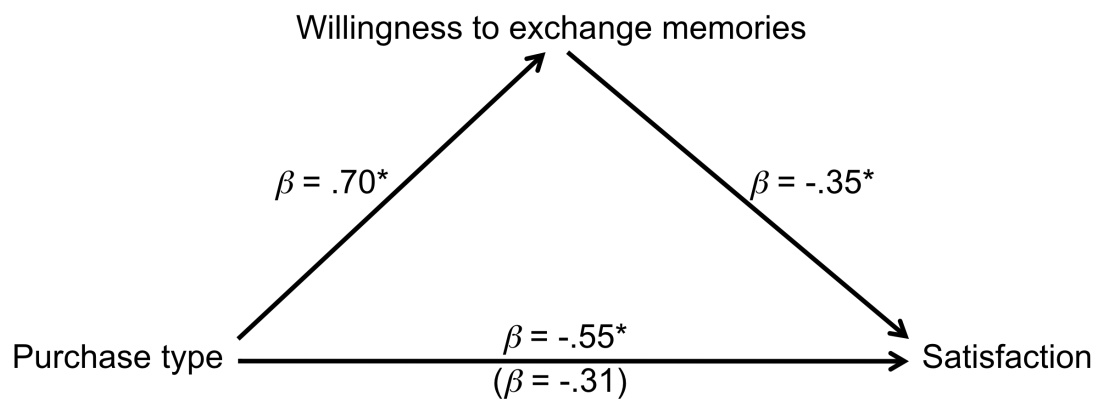


Figure 7: Mediation analysis. Impact of purchase type on satisfaction is mediated by the willingness to exchange memories of the purchase.

* $p < .05$; + $p < .10$

Discussion

As predicted, participants clung more firmly to their experiences than their material possessions, claiming that their experiential memories were more important, that exchanging their experiential memories would make them less happy and would more significantly alter who they currently consider themselves to be. Importantly, this tendency mediated the difference in satisfaction between the experiential and

material conditions. Participants were more satisfied with their experiences because of the importance of those memories to their identity.

Conclusions

Across three studies, it is clear that people do tend to define themselves in terms of their experiences. Experiences were plotted closer than possessions to the self-concept (Study 9), and were more likely to be mentioned when participants were asked to describe themselves (Study 10). Most importantly, the greater tendency to cling to memories of experiences helps to explain why people report greater satisfaction with their experiential purchases than their material purchases (Study 11).

Aside from the greater satisfaction it affords over time, what are some of the consequences of this tendency to hold experiential purchases closer to the self-concept? Ironically, this desire to protect memories that are closely associated with the self-concept can lead people to choose not to repeat those experiences for fear of spoiling the specialness of that memory (Zauberman et al., 2009). For example, you might be reluctant to return to the greasy spoon where you and your spouse turned overcooked hash browns into a romantic evening while waiting out a rainstorm, for fear of finding that whatever magic it possessed that night is now gone, leaving only mediocre food and dusty ambiance in its place. This same process is unlikely to interfere with the desire to purchase the same model of television next time around. Of course, special memories can become attached to material possessions as well (i.e. souvenirs), although these are typically representative of memories of the experiences afforded by the possession, as described in Chapter 1.

Another consequence is that, just as intra-individual processes can augment satisfaction with experiential purchases as a greater part of the self-concept, experiences may also be subject to other motivational and cognitive forces that act on

the self. The same defensive processes evident when the self is perceived to be under threat might operate when some threat is perceived against the memories of an experiential purchase, such as the protective strategies described above (Zauberman et al., 2009). People might also be more likely to make purchases that will buffer their identity when threatened. Work on terror management theory, which uses the salience of death as the ultimate threat to the self, suggests that this is indeed the case, though not quite in the manner than the present research would predict. Participants placed under mortality salience seem to be drawn to engage in purchases and other behaviors that will imbue them with wealth and status (for a review, see Arndt, Solomon, Kasser & Sheldon, 2004). This suggests that although people are interested in making purchases that help to validate their identity when it is threatened, their naïve theories about which purchases are ultimately going to be meaningful to them appear to be somewhat misguided.

On the other side of this same coin, experiential memories themselves might buffer against identity threats. It might be the case, for example, that thinking about an important experiential purchase, especially if one focuses on its relation to the self-concept and the higher-order goals it accomplished, would serve as form of self-affirmation (Steele, 1988), providing a self-esteem boost that would prevent the defensively prejudicial processing of information that contradicts one's worldview (e.g. Cohen, Aronson & Steele, 2000). It seems unlikely that thinking about an important material purchase would accomplish the same effect. This also points to a potential moderator of these results. It might be the case that only people with reasonably high self-esteem would derive some pleasure from thinking about their experiential purchases. For those with low self-esteem, thinking about something that is closely associated with the self may not be pleasurable at all. The converse might also be true; people with low self-esteem or depression might be especially unlikely to

incorporate even positive experiences into their self-concept, and thus be unable to reap the positive self-related benefits of experiences. These are all potentially fruitful avenues for future research.

Chapter 4: Construal

The present chapter is designed to take a closer look at the grey area in between possessions and experiences. Over the previous two chapters, I have shown that the typical finding that experiences tend to be more satisfying than possessions can be explained through the greater comparability of possessions, and the greater identity-relevance of experiences. In doing so, I focused on drawing sharp distinctions between possessions and experiences, treating them as distinct categories. This is useful from a methodological perspective, and the independent coding of the purchases people described in Study 4A confirms that people have little trouble using the categories in the same way. However, as discussed in Chapter 1, there are a number of purchases that fall somewhere in the blurry space between possession and experience. That is, some purchases have both material and experiential qualities. Some experiential purchases require a possession of some kind in order to experience them properly. One cannot take pleasure in the experience of playing music without an instrument, or enjoy the experience of camping without at least a sleeping bag and a means of transportation. If some possessions have these experiential qualities, perhaps people can take advantage of this ambiguity. Might people be able to avoid some of the problems identified above by focusing on the experiential nature of their possessions, thereby calling attention to the higher-order goals they serve? In this chapter, I describe two studies that suggest this to be the case. The two studies take two different approaches to this question. In Study 12, participants were asked to recall a material purchase and then focus on its experiential qualities. In Study 13, participants were given a scenario involving a concrete example of an ambiguous purchase, which is described either as a possession or an experience. In both cases, it is predicted that (re)construing a possession as an experience would reduce or eliminate some of the negative effects demonstrated in previous studies.

Study 12: Retrospective reconstrual

In Study 4A, participants who recalled an experience reported being more currently satisfied with the purchase, and less haunted by the specter of the unchosen options. Study 12 was designed to be a near-exact replication of Study 4A, with one additional condition. The *reconstrual* condition was identical to the material condition, except that, before responding to the dependent measures, participants were asked to think about their material purchase in terms of its experiential qualities. Importantly, participants chose and provided basic information about their purchase before they were asked to reconstrue it, reducing the chances that participants deliberately chose purchases that would lend themselves well to this exercise. Thus, holding the exact nature of the purchase constant, this study will examine whether thinking about a purchase experientially would lead to less comparison and greater satisfaction than when thinking about it as a material possession.

Because it is likely that the initial memories of the material purchase were already solidified and less subject to momentary distortion, it was predicted that reconstruing a material purchase would not alter participants' memories of how the purchase was made, but it would change how participants currently thought about the purchase. That is, it was predicted that for the past-oriented measures, participants in the reconstrual condition would respond similarly to those in the material condition, but for the present-oriented measures, participants in the reconstrual condition would respond more similarly to those in the experiential condition.

Method

Participants and procedure. One hundred and sixty-three participants completed the survey (121 Female, 42 Male) while waiting to participate in other studies.

Materials. All participants were asked to recall either an experiential or material purchase they had made, provide a brief description, and indicate how much it cost and long ago it had been purchased. Instructions to participants in the reconstrual condition were the same as those in the material condition, except that after describing their purchase, they were asked to “take a moment to think about the purchase you just described in terms of its experiential qualities. For example, a new television might have allowed you to bond with family/friends over movies you enjoy.” To ensure that any differences in the reconstrual condition were not simply due to greater cognitive effort or better recollection of the purchase, participants in the material and experiential conditions were also asked to take an additional moment to recall the details of the purchase. The rest of the questionnaire was otherwise identical to the one used in Study 4A, with the exception that the satisfaction questions were always placed at the beginning of the survey, rather than their position being counterbalanced.¹⁸

Results

There were no between-condition differences in the cost or how long ago participants had made their purchases (F 's < 1), but the experiential purchases were rated as marginally more important than the material purchases were, $F(2,160) = 2.7$, $p = .07$. None of the reported effects change in significance when controlling for the importance rating, cost of the purchase, or how long ago the purchase was made. As in

¹⁸ Many material purchases are things that are used in some capacity, allowing one to focus on the experience of using them, rather than the fact of ownership. Cars are driven, clothes are worn, and televisions are watched. Many experiential purchases cannot be similarly reconstrued. For example, it is not clear what aspects of a nice meal could be considered material in nature. One has no tangible reminder of the meal, nor any real sense of “possessing” the meal. For this reason, participants were only asked to reconstrue a material purchase, and not an experiential one.

Study 4A, composite indices of past difficulty ($\alpha = .78$) and present concern with the decision ($\alpha = .73$) were constructed.

It was predicted that the past-oriented measures would not be influenced by the reconstrual manipulation, since they were designed to tap into participants' memories for the decision process and other thoughts about the purchase shortly after it was made. Thus, participants' responses in the reconstrual condition should resemble those of participants in the material condition. However, the reconstrual manipulation *was* expected to influence participants' current thoughts about their purchase, which should influence their responses on the present-oriented measures. On these measures, then, it was expected participants' responses in the reconstrual condition to resemble those of participants in the experiential condition.

The results support this hypothesis (see Figure 8). On the past-oriented index of difficulty with the decision, participants in the experiential condition ($M = 3.35$, $SD = 1.42$) rated the purchase process as less difficult than did participants in either the material ($M = 4.28$, $SD = 1.55$) or reconstrual ($M = 3.99$, $SD = 1.43$) conditions. A linear contrast comparing the experiential to the material and reconstrual conditions (weights -1, +.5, and +.5, respectively) established that this difference was significant, $F(1,160) = 10.48$, $p < .002$. When asked whether they originally thought about the purchase more absolutely (on its own merits) or comparatively (vis-à-vis other options), the same pattern emerged. The same linear contrast yielded a significant difference between the experiential condition ($M = 4.75$, $SD = 1.90$) and the other two conditions (material: $M = 4.13$, $SD = 1.73$; reconstrual: $M = 3.98$, $SD = 1.71$), $F(1,158) = 5.43$, $p < .03$.¹⁹ Finally, and again replicating Study 4A, there was no difference

¹⁹ Two participants did not respond to the measure of whether the purchase was made more absolutely (on its own merits) or more relatively (in comparison to other options). This accounts for the slightly lower degrees of freedom in the tests involving this measure.

between conditions in how satisfied participants were with their purchases initially, $F(2,160) < 1$.

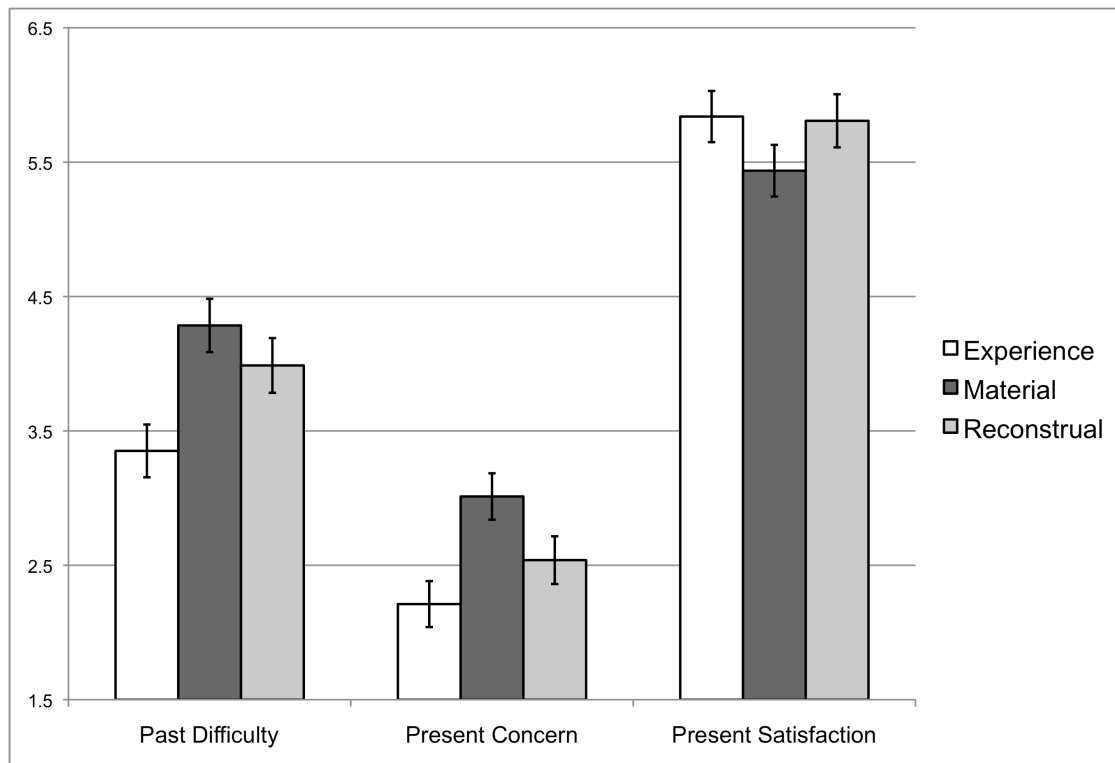


Figure 8: Past and present oriented measures by condition.

They were quite different on the present-oriented measures of difficulty with the decision, however. On these measures, the responses of participants in the reconstruct condition resembled those of participants in the experiential condition. A linear contrast comparing the experiential and reconstruct conditions to the material condition on the measure of present concern (with the decision weights -.5, -.5, and +1, respectively) revealed that participants in the experiential ($M = 2.21$, $SD = 1.17$) and reconstruct ($M = 2.54$, $SD = 1.31$) conditions were significantly less concerned about the wisdom of their purchase than participants in the material condition ($M = 3.01$, $SD = 1.35$), $F(1,160) = 9.03$, $p < .004$. There was also a marginally significant

tendency for participants in the experiential ($M = 5.84$, $SD = 1.55$) and reconstrual ($M = 5.81$, $SD = 1.27$) conditions to be more satisfied with their purchase than participants in the material condition ($M = 5.44$, $SD = 1.44$), $F_{contrast}(1,160) = 2.69$, $p = .10$.

Discussion

These findings replicate those of Study 4A, confirming that material purchase decisions are more difficult than experiential purchase decisions at the time they are made, with concern about the decisions one made lingering into the present. However, when participants were led to think of a material possession in terms of its experiential qualities, their memories for the purchase did not change, but their current thoughts and feelings about their choices began to resemble those of participants who were asked about an experiential purchase. By holding constant the nature of the purchases participants in the material and reconstrual conditions were led to evaluate, this finding makes it clear that the observed difference in people's reactions to experiential and material purchases reported here and elsewhere (Van Boven & Gilovich, 2003) is not an artifact of the particular exemplars of the two categories that people tend to recall.

There are two potential limitations to drawing firm conclusions based on this study. First, as I have argued above, memories for experiences can be distorted over time. If this were indeed the case, why would one expect the reconstrual to only apply to the present-oriented measures? It seems likely that any memory distortion that causes the negative aspects of an experience to get lost would need a longer period of time to be successful. Furthermore, it would be somewhat problematic for the past-oriented measures to be subject to memory distortion. The theory espoused throughout the present dissertation predicts that experiential purchase decisions are less difficult to make at the time as a result of differences in comparability, and because people are actually engaging in different decision-making strategies, as evidenced by Studies 1

and 2. If these differences are real at the time of the decision, then evidence suggesting that reconstrual of a possession distorted memories of the decision process might further suggest that this was also the case for experiences. That is, such a finding would suggest that the findings of Study 4A were also a product of memory distortion, and would undermine the other findings reported above.

Second, one could take issue with the mention of social relationships in the reconstrual manipulation. Perhaps the effect of the manipulation had more to do with thoughts of social relationships, and less to do with the ability to reframe a possession as an experience. In some ways, this criticism is not problematic. It is believed that a big part of why experiences are ultimately more satisfying is that they do involve other people. The best experiences serve higher-order goals for friendship, romance, and belonging, all of which are closely associated with happiness (Myers, 2000). It is likely that, in order for a possession to be successfully construed as an experience and receive the same benefits, it would need to involve not just thinking about *how* one used the purchase, but *why*. Regardless, Study 13 used a different methodology, one that is not subject to this same criticism.²⁰

Study 13: Framing away invidious comparisons

Study 13 was designed to test whether the same concrete example of a purchase can be framed as an experience or a possession, diminishing the impact of negative comparative information in the former case. In Study 7, participants reported being more troubled by news that a recent material purchase could have been cheaper than they were by learning the same information about a recent experiential purchase. The present study used the same basic paradigm, but instead of choosing different

²⁰ Study 13 is a modified description of Study 6 in Carter and Gilovich (in press, *Journal of Personality and Social Psychology*, The Relative Relativity of Material and Experiential Purchases).

concrete examples that clearly fall into one category or another, a single concrete example was used, one that could be described in terms of material or experiential qualities. Specifically, participants were asked to imagine buying a boxed set of music, and their plans to enjoy listening to it (experiential condition) or their plans to enjoy merely possessing it (material condition) before learning that it was now available for less money. A boxed set of music, in addition to being a purchase with which the subject population should be familiar, is a perfect example of a purchase that has both material and experiential qualities. It is, by its nature, intended as a collector's item, something physical to possess for some substantial length of time. It is also, by its nature, intended to be experienced and enjoyed. Thus, it should be possible to focus participants' thoughts on either the material or experiential aspect before they learned of a potentially invidious comparison. It was predicted that participants led to think of it as a material possession would be more troubled by this negative comparative information than participants led to think of it as an experience.

This paradigm also offers several particular benefits over the previous studies. First, in Studies 6 and 7, there was a possibility that participants in the material condition could have imagined exchanging their purchase, potentially taking advantage of the new price. Although that criticism is unlikely to have influenced the results, it does not hold here, because the possibility applies equally to both conditions, and furthermore, the instructions make it clear that this was not an option. Second, the reconstrual manipulation used in Study 12 emphasized social relationships. The description of the purchase in this case was careful not to make reference to other people, eliminating this as a potential confound.

Method

Participants and procedure. Eighty participants were approached on campus to complete the survey in exchange for a small candy bar, or completed it as a filler questionnaire in unrelated experiments.

Materials. Participants were asked to imagine that they had just bought a boxed set of their favorite band's music, which included the band's entire catalog in unmatched audio quality. In the material condition, participants were asked to imagine thinking to themselves on the way home from the store how the boxed set would fit into their music collection, and the prominent place it would assume on their music shelf. In the experiential condition, participants were asked to imagine thinking about the experience of listening to the music and reliving their emotional connection with the songs. Although it was not made explicit, it was strongly implied that experience would be had alone.

After reading the description of the boxed set, all participants were asked to imagine that, on their way home, they noticed another store selling the same boxed set for considerably less than they just paid. It was made clear that they could not return their purchase, so they could not take advantage of the lower price. They were then asked how bothered they would be by this development (1=not at all, 7=extremely), how much it would diminish their satisfaction (1=not at all, 7=extremely), and how much they would regret having made the purchase (1=no regret at all, 7=a great deal of regret). At the end of the survey, participants completed a manipulation check, indicating whether they thought of the boxed set of music as an experience (something one purchases to *do*) or a material possession (something one purchases to *have*), also on a 7-point Likert scale (1=definitely a possession, 4=neither, 7=definitely an experience).

Results and discussion

Manipulation check. Participants in the material condition ($M = 3.29$, $SD = 1.89$) rated the boxed set as more material in nature than participants in the experiential condition ($M = 4.05$, $SD = 1.78$), but only to a marginally significant degree, $t(78) = -1.85$, $p < .07$, $d = .433$. Considering that the manipulation must overcome participants' existing notions of a boxed set as material or experiential in nature, the marginal impact of the manipulation is perhaps not surprising, and in any event only makes the predicted result harder to obtain.

Dependent measures. Participants' responses to the three questions were averaged into a composite index of displeasure ($\alpha = .77$). As predicted, participants who were led to think of a boxed set of music as a possession indicated that they would be more displeased ($M = 4.57$, $SD = 1.35$) by finding out that it was available at a lower price than participants led to think of it as an experience ($M = 3.97$, $SD = 1.04$), $t(78) = 2.23$, $p < .05$, $d = .589$.

Conclusions

Although perhaps only relevant to items that do not fall clearly into the category of experience or possession, the findings presented in this chapter suggest that *thinking* about a purchase in terms of the experiences it affords can be beneficial. Study 12 showed that reconstruing a material purchase after the fact can reduce the presence of lingering thoughts of unchosen options that otherwise diminish satisfaction. Study 13 showed that thinking about a purchase as an experience can mitigate the impact of invidious comparisons that otherwise take a toll on satisfaction. Based on the results of Studies 12 and 13, it seems likely that the same logic could be applied to the relationship between the self-concept and experiential purchases demonstrated above. If one is able to focus on a possession's experiential qualities,

and in particular, the higher-order goals that it served, it might very well become more closely incorporated into the self-concept. It is not known, however, if this could be accomplished over the course of a single survey or experimental session. Future study should certainly investigate this as a possibility.

Chapter 5: General Discussion

Summary of findings

Across 13 studies, I have provided support for two hypotheses to explain why experiences tend to be ultimately more satisfying than material possessions (Van Boven & Gilovich, 2003). First, as discussed in Chapter 2, experiences appear to be evaluated less comparatively than possessions. This has several important consequences. As demonstrated by Studies 1 and 2, people tend to employ different decision-making strategies, opting for a maximizing approach for possessions, and a satisficing approach for experiences. Immediately after a choice is made, participants in Study 3 were more interested in making comparisons to the unchosen options when they had chosen from among possessions than when they had chosen from among experiences. These comparisons appear to have an impact on real-world decisions as well, as evidenced by Studies 4A, 4B, and 5. Material purchase decisions were more difficult than experiential purchases decisions (Studies 4A and 4B), and thoughts about unchosen material purchases were more likely to linger into the present, which mediated participants' greater present satisfaction with their experiences (Study 4A). Thinking about an experiential purchase even led to a more positive momentary mood than thinking about a possession (Study 4B). Study 5 allowed the observation of the effect of comparisons in a lab environment, in which participants were less happy with a material prize when it compared unfavorably to other prizes. This was not, however, true of experiences. What's more, negative comparative information about a material purchase appears to have a greater hedonic impact than the same information about an experiential purchase. This was true when learning that new and better options are now available (Study 6), that the price on a purchase was lowered shortly after the purchase was made (Study 7), or that a rival's purchase had turned out better than one's own (Study 8).

Second, as discussed in Chapter 3, experiences tend to be more closely incorporated into the self-concept. Indeed, when asked to plot material and experiential purchases in terms of their proximity to the self, participants plotted their experiences closer to their self-concept than their possessions (Study 9). When asked to describe themselves in the form of telling their life story, participants were more likely to include their experiential than their material purchases in the narrative (Study 10). Importantly, this greater incorporation of experiences into the self led people to cling more tightly to their experiential memories, and this tendency also helped to explain why the recalled experiential purchases were more satisfying than recalled material purchases (Study 11).

Finally, it appears that people can take advantage of the somewhat blurry distinction between material and experiential purchases, as discussed in Chapter 4. Participants in Study 12 who were asked to recall a purchase reported that, compared to experiences, material purchases were more difficult to make at the time, and that thoughts of unchosen options still lingered into the present, replicating Study 4A. However, when asked to reframe a material purchase in terms of its experiential qualities, participants' memories of how they felt initially did not change, but their thoughts about it in the present were similar to those of participants in the experiential condition. That is, reconstruing a material possession as an experience can potentially obviate some of the negative consequences of material possessions. Study 13 provided additional support, showing that negative comparative information about a boxed set of music had a smaller hedonic impact when it was described as an experience rather than as a possession.

In the remainder of the present chapter, I will discuss the implications of the present findings, any lingering issues unresolved by the experiments above, and future directions for the research.

Implications

Although the present research was designed in part to explain the existing finding that experiences tend to make people happier than possessions (Van Boven & Gilovich, 2003), the particular mechanisms outlined here help identify additional implications beyond the simple idea that people would be better off spending their disposable income on experiences than possessions. One example comes from the finding that experiential purchase decisions are approached differently than material purchase decisions. As described in Chapter 2, consumers face the problem of “hyperchoice” (Schwartz, 2004); quite often, there are simply too many options to make all of the comparisons necessary in order to identify the best possible option. If experiential decisions tend to be satisficed, the effects of hyperchoice may be less pronounced. That is not to say the problem of hyperchoice would be eliminated, as the studies of Iyengar and Lepper (2000) showed that people are still daunted by the prospect of choosing from among 24 different types of gourmet jam, which is arguably an experiential purchase. However, this study may highlight the difference between people’s intuitions about the choice process and their actual experience of it. Just as participants wrongly predicted that their enjoyment of a bag of chips would suffer when in the presence of superior chocolate (Morewedge et al., 2009), people may expect that, when faced with 24 jams, they would have a difficult time choosing. However, it might be the case that, when actually engaged in the process, they will be content with the first particularly good jam they taste, and not compelled to taste any additional jams. Thus, in order for this greater tendency to satisfice experiences to have any positive effect, it may be the case that people need to deliberately engage in experiential choices they might normally avoid, realizing that a satisficing strategy will suffice to obtain a satisfactory outcome.

The studies above also demonstrated that the positive benefits of experiential purchases may not be realized in the near term. Participants in Study 4A, for example, showed no difference between conditions in reported satisfaction immediately after the purchase was made. Similarly, participants in another study (Van Boven & Gilovich, 2003, Study 4) were more likely to say that an experience would make them happier than a possession at a greater temporal distance. This is likely true for a variety of reasons. First, evaluation of an experience might improve over time due to a greater focus on higher-order goals at a greater temporal distance (Trope & Liberman, 2003). If possessions are not serving as many higher-order goals, greater temporal distance will not be as beneficial. This might suggest that deliberately focusing on these higher-order goals will produce the advantages of experiences much more quickly. Second, the process of incorporating experiences into the self-concept may require some time, and the benefits would not be reaped immediately.

Third, with time, it is increasingly likely that one will encounter negative comparative information about a purchase, which will take a greater toll on satisfaction with possessions than experiences, as evidenced by Studies 6, 7 and 8. New models of electronic gadgets rarely offer fewer features for the same money, and underperforming restaurants and subpar vacation packages are likely to be out-competed by the better or cheaper options that crop up. Purchasers of electronic gadgets have cause to fear the march of progress; in just two months, their new cell phone may be obsolete and coveting the new models does no favors for present satisfaction. Purchasers of experiences, on the other hand, can rest assured that the new options offered by their favorite travel website will do little to diminish the memories of their current trip. More than merely explaining the phenomenon, knowledge of these tendencies can help to carve out strategies for avoiding disappointment or regret. After purchasing an mp3 player, one is better off avoiding

browsing the new models until one is actually in the market to buy. After returning from a vacation, one can feel just fine browsing the travel website's new packages. Not only is the process likely to prolong thoughts about the vacation just returned from, it also allows one to spend more time anticipating the next vacation (see Wilson, Centerbar, Kermer & Gilbert, 2005) without diminishing one's present satisfaction.

While choosing to purchase experiences at the expense of material possessions appears to be the more solid route to happiness, the ultimate message of the present research is not that one should give up all material possessions to live a purely experiential life. On the contrary, most of the material purchases participants reported about were quite satisfying, with ratings well above the scale midpoint in every case. While money spent on experiences is likely to be money *better* spent, the money would probably be considered *well* spent in either case. Regardless, it would be nearly impossible for most people to live without at least some possessions. In order to fully function in industrialized society, people need clothes, cars, and electronics. (I hardly need mention that without a computer, the present research could not have been conducted, and that without an mp3 player, the present researcher could not have remained sane throughout the process.)

In addition to opting to purchase experiences over possessions when possible, the other message from the present research is twofold. First, one can garner at least some of the benefits of purchasing experiences merely by focusing on the experiential aspects of past and future material purchases. At the least, it appears that satisfaction with these purchases might be less susceptible to negative comparative information. Second, and related, when evaluating the quality of a purchase, one should focus on the particular merits of that purchase, assessing how it meets one's goals, especially higher-order goals. The alternative strategy, focusing on how a given purchase compares to the unchosen options or the options available at present, appears to be a

big source of the negative consequences of material purchases. Between these two tactics, one can still purchase the possessions necessary to function without succumbing to the curse of possessions.

Definitional issues revisited

Although many of the concerns articulated in Chapter 1 about the distinction between material and experiential purchases still hold, it is hoped that the variety of ways that the categories were instantiated alleviates some of them. In several studies, the categories were described, and participants were asked to recall purchases that fit one or both categories (Studies 2, 4A, 4B, 9, 10, 11 and 12). As evidenced by the ratings of blind coders in Study 4A, participants seemed to apply the categories consistently enough that an outside observer would make the same classification. In other studies, concrete examples were used to exemplify the categories (Studies 1, 3, 5, 6 and 7). In Study 8, a hybrid approach was used; participants were presented with a concrete example from one category and then asked to generate an equivalent purchase from the other category. This approach helps ensure that the purchases from each category were psychologically equivalent, even if other exogenous differences might still be present. The opposite approach was used in Study 13. In this study, the exact same purchase was described as either a material possession or as an experience, ensuring that the purchases were equivalent on all superficial features, and only the psychological dimension was varied. Additionally, the success of both within- and between-subjects methodologies suggests that the categories and results are reasonably robust. Taken together, the variety of approaches and consistency of the evidence helps to confirm that the categories, however imprecise, are nonetheless real and useful to participants. Interestingly, what categorical ambiguity exists can actually be advantageous, as demonstrated in Chapter 4. Having participants focus on the

experiential qualities of an otherwise material purchase allowed them to avoid some of the potential negative consequences associated with possessions.

An additional distinguishing factor of possessions and experiences, hinted at in Chapter 1, has to do with the ease with which one can simulate the outcome of a purchase. As stated above, one can easily simulate the experience of watching a television in one's living room by viewing it in a store, something that does not typically apply to experiences. Although this might make it easier to make comparisons to other material purchases, as demonstrated above, there may be additional factors at work. For one, an accurate simulation of the outcome of a purchase can remove the element of surprise. People have little difficulty imagining a concrete outcome for a given scenario (Gilovich, 1990; Griffin, Dunning & Ross, 1990), but there is no guarantee that the actual outcome will bear any resemblance to the imagined outcome. This greater potential for inaccuracy might very well be beneficial, and reduce the effects of adaptation (see Frederick & Loewenstein, 1999). Surprise and variability in outcomes requires more explanation (Wilson & Gilbert, 2008), which, in the case of positive events, can enhance the event's positivity by prolonging the "pleasures of uncertainty" (Wilson et al., 2005).

Social relationships

One additional benefit of experiential purchases not investigated in the present work is the role they play in developing social relationships. Much more so than possessions, experiences tend to involve other people, and strong social bonds are among the best predictors of happiness (e.g. Myers, 2000). It should be noted, however, that while social relationships might contribute to some of the present findings, this factor can by no means explain them all. It might be the case that people were more satisfied with their experiences than possessions at the present as a result of

the social bonds developed in consuming them, and it is quite likely that the experiences were more closely incorporated into the self-concept as a result of the relationships involved. However, the social bonds developed as a result of an experiential purchase should have no bearing on the decision-making strategy one used when choosing which experience to purchase (Studies 1-3). It also seems exceedingly unlikely that social relationships contributed greatly to participants' interpretation of any of the hypothetical scenarios used in Studies 6, 7, 8, and 13. Furthermore, it is clear that social relationships played no role in Study 5, which used actual possessions and experiences in a lab environment. Thus, it is believed that social relationships do greatly contribute to making experiences more satisfying than possessions, but that this complements, rather than diminishes, the explanatory value of the current findings.

Limitations

There are a few limitations to the conclusions one can draw based on the findings reported above. For example, the majority of the participants in each study were undergraduates at a prestigious university with a relatively high socioeconomic status. One of the studies conducted by Van Boven and Gilovich (2003, Study 2), which surveyed a nationally representative sample of participants, helps to reduce this concern. This study asked participants to recall both a material and an experiential purchase, and simply report which one made them happier. Most people indicated that their experiential purchase made them happier, and this trend was slightly exaggerated in the wealthy and educated. The trend was only absent or reversed at the extreme low ends of the education and income distributions. As Van Boven and Gilovich (2003) suggest, because people with little education and economic resources are unlikely to have a great deal of discretionary income, the majority of their material purchases may

go towards filling their basic needs, which would have a big effect on well-being. Experiential purchases in this income bracket are probably rare, and are likely seen as extremely frivolous, since they reduce the amount of money available for more important purchases. As such, the claims made based on this research are likely limited to purchases that go above and beyond basic needs, making use of discretionary, and not compulsory, income.

Another potential limitation comes from the use of hypothetical scenarios and retrospective thoughts about purchases as the methodology in many of the studies reported above. It could be argued that the studies are measuring intuition and memory, and not actual consumer behavior. The use of an actual experience and possession in Study 5 helps to argue against this, as the same effect was observed in the lab as was found in retrospective and hypothetical studies. Furthermore, it is quite common to use hypothetical purchase scenarios in research on consumer behavior and judgment (e.g. Carmon et al., 2003; Cooke et al., 2001; Herrmann et al., 2009; Hsee, 1996; Tsiros, 1998; Walchi & Landman, 2003; Zhang & Fitzsimons, 1999). This approach allows greater experimental control over the parameters of interest, and since the situations participants are asked to imagine are reasonably commonplace, mental simulations are likely to be reasonably accurate. Using hypothetical scenarios in the studies above (e.g. Studies 6 and 7) also helped eliminate potential confounds, such as the greater role of social relationships in experiential purchases, while ensuring that the only difference between scenarios was the particular purchase portrayed. Using retrospective reports allows the study of larger purchases that could not possibly be simulated in a lab environment, and captures the types of purchases that participants are actually making in their daily life. After all, it is the memories of a purchase that we ultimately live with, and it is these memories that inform our intuitions when

construing future scenarios, and determine our future purchase decisions and decision processes.

A final question concerns the potential moderating variable of materialism. In two of the studies reported above (Studies 8 and 12), although it was not discussed, materialism (via the MVS) was measured after participants had given their responses to the measures of interest. In neither case did it explain or moderate the differences between conditions. This suggests that the greater tendency to engage in comparisons between material possessions is not limited to those who place a high value on possessions, and in particular, having better possessions than others. In two other studies (Studies 9 and 10), materialism was negatively, though weakly, correlated with the greater tendency to incorporate experiences rather than possessions into the self-concept. This is, in some sense, unsurprising. Part of what it means to be materialistic is to define oneself in terms of one's possessions. The fact that even those participants who scored highest on the materialism scale showed, at worst, equal contributions of possessions and experiences to the self-concept underscores the value of experiences, since they overcame this powerful personal value. Although materialism does not appear to be a limiting factor on the results reported above, the exact role that experiential purchases play in the lives of materialists is still in need of investigation.

Future directions

The research reported above focused on the purchase-decision process, but omitted an important possible outcome: the decision *not* to purchase any of the available options. This provides an interesting avenue for future study, especially as it relates to regrets. In particular, it is known that regrets of actions and inactions operate differently (Gilovich & Medvec, 1994, 1995; Kahneman & Tversky, 1982). Regrets due to actions seem to be most regrettable in the short term, but regrets of inaction

tend to maintain their sting over time (Gilovich, Medvec & Kahneman, 1998). This tendency, applied to purchases, suggests that people will experience greater regret about making purchases in the short term, but greater regret about *not* making purchases in the long term. Much of the research on regrets tends to focus on life events and experiences people did or did not engage in, indicating that experiential purchases would probably be subject to the same forces. Even a positive experience, like a nice meal with friends or a vacation with family, might be regretted initially. If one had pressing financial concerns or work deadlines, the money and time might seem poorly spent, as there is nothing but a memory to show for it. Over time, the financial strain will dissipate and the deadlines will pass, while the memories become only more cherished. The extra money in one's pocket or additional work completed might make the decision not to purchase those same experiences seem very reasonable initially, but as the financial and work-related strain becomes less immediate over time, thoughts of foregone opportunities might become more frequent (Savitsky, Medvec & Gilovich, 1997), and the feeling of regret for the missed memories would only increase.

However, just the opposite pattern might be evident with material possessions. That is, choosing to buy a new mp3 player might be only slightly regrettable initially, as the shiny new gadget provides a physical counterpoint to the financial strain. Later, as it ages and the superior features of new models make one's own mp3 player appear tarnished by comparison, the purchase seems harder to justify. Counterfactual thoughts of all of the other ways one could have spent the money instead might come bubbling forth, producing regret for what now seems to be a poor choice. Choosing not to buy the mp3 player might be painful initially, as the advertisements and players in the hands of others will be salient reminders of what one could have. Over time, that decision only seems more justifiable, as the psychological immune system kicks

in to reduce the pain (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998). Thus, people might regret making experiential purchases more than making material purchases initially, but less in the long-term. Just the opposite pattern would be evident for decisions not to make a purchase; people would regret not making material purchases more than not making experiential purchases initially, but this trend would reverse over time. An anonymous sage apparently had learned this lesson, as the quote that hung on my parents' refrigerator once read, "Don't let today's economies rob tomorrow's memories."

While the short-term pattern of regret might be easy to predict, it is unlikely that the long-term pattern would be (Wilson, Wheatley, Meyers, Gilbert & Axsom, 2000; Wilson, Meyers & Gilbert, 2001). Thus, in order to avoid future regret (Zeelenberg & Pieters, 2007), people might mistakenly choose to make material purchases, and choose not to make experiential purchases, a pattern that, over time, would produce more regret. There is some evidence for this pattern in the existing literature. Abendroth and Diehl (2006) gave participants a hypothetical scenario with a limited window in which they could choose whether or not to purchase a souvenir concert t-shirt, and then measured the level of regret initially and after a period of time. Provided that the t-shirt would have some long-term utility, participants regretted not making the purchase more initially, but this regret diminished over time, consistent with the pattern predicted for a material purchase. However, the use of souvenirs, which have the physical properties of a material purchase, but might have the memorial properties of an experience, and the fact that the scenario was hypothetical, makes interpretation of the results in terms of material and experiential purchases somewhat difficult. Future study using less ambiguous purchase categories would provide a better test of the hypothesis.

The role of the self in experiential memories might be another fruitful avenue for future research. As demonstrated by the studies above, experiences make a larger contribution to the self-concept. This suggests that the concept of self might be more accessible after thinking about an experiential than a material purchase. What's more, just as mood was better after thinking about an experiential rather than a material purchase (Study 4B above; Van Boven & Gilovich, 2003), it might be the case that self-esteem would improve after thinking about an experiential purchase, particularly if one were to focus on the higher-order goals the purchase served. Indeed, this particular tactic, thinking about the higher-order goals served by a purchase, might prove similar to a self-affirmation manipulation, and could buffer against defensive responses to self-threats. Similarly, Study 11 provided some evidence that people are protective of their experiential memories. It might also be the case that experiential purchases would be subject to the same defensive processes evident when the self is threatened, such as derogating alternatives and bolstering the chosen purchase. It seems unlikely, on the other hand, that people would show the same degree of defensiveness for their material purchases.

Another of the findings of Van Boven and Gilovich (2003) could bear some further investigation. They found that participants faced with a choice between a material possession or an experience were more likely to choose the experience if they conceived of the choice at a greater temporal distance. This is consistent with Construal Level Theory (CLT; Trope & Liberman, 2003), which suggests that, at greater temporal distances, people tend to focus on more abstract, high-level features. In this case, it is the high-level features where experiences have an advantage over possessions. The research reported above suggests that this link might be bidirectional. If part of the reason that experiences are more satisfying over time is that people tend to focus on the higher-order features of experiences, such as the goals they serve,

thinking about an experiential purchase might be more likely to put participants in a high-level mindset. Compared to thinking about a material possession, thinking about an experience, especially a satisfying or important one, would be more likely to lead people to classify an action, such as brushing one's teeth, in terms of the reasons for doing it (maintaining good oral hygiene) than how it is performed (moving the bristles back and forth on the teeth; see Vallacher & Wegner, 1989). This would further illuminate the cluster of processes that lead experiences to become more satisfying than possessions over time.

Conclusion

The present research has provided additional evidence that experiences are indeed ultimately more satisfying than possessions, and furthermore, helped to elucidate the mechanisms involved. Experiences are evaluated in a less comparative fashion, which makes the decision process easier and post-choice comparisons less troubling. They are also more thoroughly incorporated into the self-concept than are possessions, which provides greater motivation to embellish and cherish those memories. The more social nature of experiences undoubtedly contributes to the greater satisfaction as well. From many angles, the pursuit of experiences appears to be the firmer path to happiness.

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